



1895.

SUMMARY OF THE REPORTS

OF THE

DISTRICT MEDICAL OFFICERS OF HEALTH

IN THE

ADMINISTRATIVE COUNTY OF ESSEX,

For the Year 1894.

PREPARED FOR THE COUNTY COUNCIL

BY

JOHN C. THRESH, D.Sc., M.B., B.Ch., D.P.H.,

Lecturer on Public Health, King's College, London ;

Fellow of the Chemical Institute ;

Member of the Society of Public Analysts, etc., etc.

Presented to the SANITARY COMMITTEE,

JUNE, 1895.

Chelmsford :

PRINTED BY JOHN DUTTON, 8, TINDAL STREET.



Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

<https://archive.org/details/b29195561>

To the Sanitary Committee of the Essex County Council.

GENTLEMEN,

Appreciating your desire to have the Summary of the Annual Reports of the Medical Officers of Health issued at as early a date as possible, special efforts have been made to obtain the said reports. As two of the most important only reached me early in the present month (May) and my Summary was in its entirety in the printer's hands by the 18th inst., very little time has been lost.

It gives me especial pleasure to record a steady and marked improvement in the character of the reports presented. Many of those sent in this year are excellent in every respect. Unfortunately there are still some which are not nearly complete, many important subjects being entirely omitted or referred to in a cursory manner.

It is much to be regretted that so many of the reports are not printed. I am afraid some Medical Officers think that it is little use preparing careful reports which will be taken as read, and neither printed nor distributed. The Medical Officer's Report has, when properly prepared, a certain educational value and in the best interest of Public Health his opinion of the sanitary or insanitary condition of the district, and of the improvements required, should be made widely known. In the Urban Districts only 11 out of 20 reports are printed, whilst in the Rural Districts 16 of the 20 reports are printed.

I have again to thank my confrères for sending me their monthly reports of the number of cases of Infectious Diseases notified. Probably no other County can present so complete a monthly return.

Another matter for congratulation is the completeness of the Returns from the Sanitary Inspectors. Only one is missing. The Table compiled from these returns is especially valuable, enabling us to see at a glance the varying amount of supervision exercised in different districts.

Of the many important subjects referred to in the Reports which deserve the attention of your Committee, probably the most urgent, is an investigation of the cause of the terrible mortality amongst young children in certain parts of the County. The thought that half the number of deaths in certain districts occur amongst children under 5 years of age is simply appalling.

I have the honor to be, Gentlemen,

Your obedient Servant,

JOHN C. THRESH.

CHELMSFORD,

May 18th, 1895.

CONTENTS.

PART I.

	PAGE.
Population of the County—	
Increase in Urban Districts and in Rural Districts.	
Difference between Medical Officer of Health and Census estimates... 	7
County Birth-rate—	
Comparison between different districts. Still births and premature births	8
County Death-rate —	
Total deaths in Urban and Rural Districts. Deaths in public Institutions, corrections for. Com- parison with England and Wales. Cause of the low mortality. Districts in which high and low rates have prevailed	9
Deaths of Children under 5 years of age. Enormous differences in various districts	12
Infantile Mortality—	
Statistics for Urban and Rural Districts. Dr. Shadwell on “excessive mortality amongst children”	13
Deaths from Zymotic Diseases—	
Number of deaths attributable to each of the seven principal Zymotic diseases. Comparison of Death-rates with England and Wales ...	14
Deaths from Phthisis	16
Uncertified Deaths	16
Table of Death-rates, Birth-rates, &c. for each District	17

Section II.

Prevalence of Zymotic Diseases—	
Number of cases notified in Urban and Rural Districts. Comparison with previous years. Seasonal variation	
Distribution throughout the County of Zymotic Diseases—	
Districts with high case-rates. Excessive prevalence in Southern portion of County. Table of total cases, &c. for each district	21

Section III.	PAGE.
Cholera. Local Government Board report on alleged outbreak at Clacton, 1893	24
Small-Pox—	
Period of prevalence. Districts affected ...	25
Scarlet Fever	29
Diphtheria and Croup. The Diagnosis of Diphtheria. Dr. Thresh's circular. Districts affected. Variation in severity... ..	31
Continued and Puerperal Fevers	40
Typhoid Fever—	
Prevalence in Rochford Union. Remarks on prevalence in other districts. Tables, &c. ...	41
Erysipelas	45
Diarrhœa—	
Diarrhœa and Infantile mortality. Improper feeding of Infants	45
Measles and Whooping Cough—	
Advantages and disadvantages of Notification, &c. ...	47
Number of cases of Infectious Disease treated in Isolation Hospitals. Districts without Hospitals. Districts with temporary Hospitals. Districts with some form of permanent Hospital. Disinfecting, provision for	48
Section IV.	
Sanitary Improvements chronicled during the year ...	49
Results of Systematic Inspection	51
Summary of Reports of Sanitary Inspectors ...	52
Inspection of Work-shops and Work-places ...	56
Housing of the Working classes	57
Water supplies, polluted or insufficient in quantity ...	58
Sewerage, drainage, &c.—	
Danger of flushing W.C.'s directly from the mains. Imperfect flushing. Long Hopper closets. Water cisterns. Pollution of Rivers and Streams. Offensive Trades. Cesspools and wells, &c.	59
Meteorological Observations	61
Meteorological data and the prevalence of certain Diseases	63

PART II.

PAGE.

Summary of Annual Reports from the Urban Sanitary

Districts	...	...	...	...	64
Barking	...	64	Maldon	...	80
Braintree	...	66	Romford	...	82
Clacton	...	66	Saffron Walden...	82	
Chelmsford	...	68	Southend	...	84
Colchester	...	69	Waltham Holy		
East Ham	...	71	Cross	...	86
Grays	...	73	Walthamstow	...	88
Halstead	...	74	Wanstead	...	89
Harwich	...	76	Witham	...	90
Ilford	...	78	Woodford	...	91
Leyton	...	79	Walton-on-Naze	93	
Rural Sanitary Districts	...	...	...	...	95
Billericay	...	95	Linton (part of)	...	106
Bishop Stortford			Maldon	...	107
(part of)	...	97	Ongar	...	108
Braintree	...	98	Orsett	...	109
Chelmsford	...	99	Risbridge, (part of)	111	
Dunmow	...	101	Rochford	...	112
Epping	...	102	Royston, (part of)	113	
Halstead No. 1	104		Romford	...	113
„ „ 2	104		Saffron Walden...	115	
Lexden and			Sudbury (part of)	116	
Winstree	...	105	Tendring	...	117
Port Sanitary Districts—					
Maldon	...	119	Harwich	...	120
Colchester	...	121			

Appendix—

Table of Population, Births and New Cases of Sickness.
Local Government Board form. Table of Deaths.
Local Government Board Form.

URBAN SANITARY DISTRICTS.

- Barking—9, 12, 17, 21, 22, 23, 25, 29, 34, 40, 44, 49, 50, 52, 56, 64.
- Braintree—11, 17, 23, 29, 34, 40, 44, 48, 52, 56, 59, 66.
- Clacton—11, 17, 23, 24, 29, 40, 44, 48, 52, 58, 66.
- Chelmsford—12, 17, 23, 29, 34, 40, 44, 49, 52, 68.
- Colchester—12, 17, 23, 29, 34, 40, 41, 44, 47, 50, 52, 56, 61, 69.
- East Ham—12, 17, 21, 22, 23, 25, 29, 30, 33, 34, 40, 41, 44, 46, 47, 49, 52, 56, 71.
- Grays—9, 12, 17, 23, 25, 26, 29, 40, 44, 48, 50, 52, 60, 73.
- Halstead—11, 16, 17, 23, 29, 33, 34, 40, 44, 49, 50, 52, 56, 60, 74.
- Harwich—9, 17, 23, 29, 40, 44, 49, 52, 76.
- Ilford—17, 23, 25, 26, 29, 40, 44, 48, 52, 58, 60, 78.
- Leyton—7, 12, 17, 21, 22, 23, 25, 26, 29, 30, 34, 36, 40, 42, 44, 46, 47, 49, 52, 58, 79.
- Maldon—11, 16, 17, 23, 25, 26, 29, 35, 40, 44, 49, 52, 80.
- Romford—11, 17, 21, 22, 23, 25, 26, 29, 35, 40, 44, 48, 52, 82.
- Saffron Walden—17, 21, 23, 29, 40, 44, 49, 50, 52, 82.
- Southend—17, 21, 22, 23, 24, 25, 26, 29, 40, 41, 42, 44, 49, 50, 52, 84.
- Waltham Holy Cross—17, 23, 25, 27, 29, 30, 33, 36, 40, 44, 45, 48, 52, 56, 58, 62, 86.
- Walthamstow—12, 13, 17, 23, 25, 27, 29, 30, 37, 40, 42, 44, 46, 48, 52, 62, 88.
- Wanstead—9, 17, 23, 25, 26, 29, 33, 40, 44, 49, 50, 52, 89.
- Witham—9, 16, 17, 23, 29, 40, 44, 45, 48, 52, 58, 90.
- Woodford—17, 23, 25, 26, 29, 36, 40, 43, 44, 48, 49, 51, 52, 91.
- Walton-on-Naze—11, 17, 23, 29, 40, 44, 45, 48, 52, 59, 93.

RURAL SANITARY DISTRICTS.

- Billericay—12, 18, 23, 25, 27, 29, 40, 44, 49, 54, 59, 62, 95.
 Bishops Stortford (part of)—18, 21, 23, 29, 40, 44, 48, 54, 97.
 Braintree—12, 18, 23, 25, 29, 33, 37, 40, 44, 48, 50, 54,
 59, 61, 98.
 Chelmsford—9, 12, 18, 21, 23, 25, 29, 30, 34, 38, 40, 44,
 45, 49, 50, 54, 59, 61, 99.
 Dunmow—9, 18, 21, 23, 29, 30, 40, 43, 44, 48, 54, 101.
 Epping—12, 18, 23, 25, 29, 34, 38, 40, 44, 48, 49, 51, 59,
 61, 102.
 Halstead, No. 1—12, 18, 23, 29, 40, 44, 54, 58, 104.
 Halstead, No. 2—18, 23, 29, 40, 44, 54, 104.
 Lexden and Winstree—18, 21, 23, 29, 31, 40, 44, 48, 50,
 54, 105.
 Linton (part of)—12, 18, 23, 29, 40, 44, 54, 106.
 Maldon—12, 16, 18, 23, 25, 27, 29, 34, 38, 40, 44, 48, 50,
 54, 107.
 Ongar—18, 23, 29, 39, 40, 44, 48, 54, 61, 108.
 Orsett—9, 18, 23, 25, 27, 29, 40, 43, 44, 49, 54, 58, 59, 61, 109.
 Risbridge (part of)—18, 21, 23, 29, 40, 44, 54, 111.
 Rochford—18, 21, 22, 23, 25, 29, 40, 41, 44, 49, 54, 61, 112.
 Royston (part of)—18, 23, 29, 40, 44, 54, 113.
 Romford—9, 10, 12, 18, 21, 22, 23, 25, 28, 29, 39, 40, 44, 48,
 51, 54, 61, 113.
 Saffron Walden—18, 23, 29, 31, 34, 40, 44, 51, 54, 59, 115.
 Sudbury (part of)—12, 18, 23, 29, 40, 44, 48, 54, 59, 116.
 Tendring—18, 23, 29, 39, 40, 44, 48, 54, 61, 117.
 Maldon Port—119. Harwich Port—120. Colchester Port—121.

ERRATA.

- Page 13, line 7 from top, for 'effect' read "affect."
 „ 30, line 8 from bottom, for 'appear' read "appears."
 „ 41, line 15 from top, for 'prevalance' read "prevalence."
 „ 61, add to end of first paragraph "and of the River Colne by the Colchester
 Medical Officer of Health."
 „ 73, Note. The Report of Sanitary Inspector for East Ham has since been
 received and is included in the Summary of such reports. *Vide*
 page 52.
 „ 74, line 11 from bottom, for 'severs' read "sewers."
 „ 78, line 3 from top, for 'no' read "a."

SECTION I.

POPULATION OF THE ADMINISTRATIVE COUNTY.

As all our statistics are based upon the estimated populations of the Sanitary Districts, it follows that their accuracy depends in a great measure upon the correctness of these estimates. Really correct returns are only possible for the Census years ; during the intercensal periods there must be greater or less deviations from the truth, the error usually increasing the greater the interval of time between the year under consideration and the year of the preceding Census. Errors are also most likely to be of some magnitude in Districts which are increasing rapidly in population, as in the southern portion of this County, and the Urban Districts generally.

The population of the Administrative County at the middle of 1894, if calculated upon the basis of the rate of increase during the intercensal period 1881-1891, would be 635,590, made up as under :—

In the Urban Districts	...	363,620
„ Rural „	...	271,970
		<hr/>
Total	...	635,590

The total population based upon the estimate of the Medical Officers of Health for the respective Districts is 630,333, made up as follows :—

In the Urban Districts	...	357,209
„ Rural „	...	273,124
		<hr/>
Total	...	630,333

The difference in the two estimates is only about 5,000, and this is more apparent than real, because in several Districts there are large public institutions (*e. g.*, the Claybury Asylum) occupied by aliens, and as the Medical Officers justly exclude the deaths of persons in such institutions from their returns, they must also exclude the inhabitants from their population estimates.

The only marked difference in the estimates for the individual Districts is in the case of Leyton, which, according to the Medical Officer of Health, has now a population of 70,000. This is about 8,000 less than the estimate on the Census basis, but I have in this Report accepted the Medical Officer's figures, as being probably the more nearly correct.

The increase in the population in the 3 $\frac{1}{4}$ years which have intervened since the last Census was taken, and the enumeration for the purposes of this Report, is:—

In the Urban Districts	...	47,511
„ Rural „	...	4,979
County	...	52,490

The estimated population of each of the Sanitary Districts is included in the Tables in the Appendix.

THE COUNTY BIRTH-RATE.

The Birth-rate for the County generally continues below that for the whole of England and Wales, which during 1894 was the lowest ever recorded.

BIRTH - RATES.

TABLE I.

	Birth-rates, 1894, per 1,000 population.	Birth-rates, 1893, per 1,000 population.	Birth-rates, 1892, per 1,000 population.	Birth-rates, 1891, per 1,000 population.	Birth-rates, 1890, per 1,000 population.
The Rural Districts ..	26·5	27·9	26·7	27·0	27·1
The Urban Districts ...	30·2	31·95	32·0	32·6	31·3
The Administrative County	28·6	30·2	29·6	30·1	29·3
England and Wales ...	29·6	30·8	30·5	31·4	30·2

There is no doubt that the great factor influencing the Birth-rate in the various Districts is the proportion of young adults to the total population. In the purely agricultural

districts, the girls migrate as soon as they are of age to act as domestic servants, and the lads remove to manufacturing districts to find employment. Here they marry and increase the Birth-rate, whilst in the districts they have left the Birth-rate is correspondingly lowered. Compare the rates for Chelmsford (22·9) and Dunmow (23·0) with those for Orsett (34·1) and Romford (33·0). In the towns, also, the Birth-rates vary very considerably; but, as a rule, we find the highest rates where there is the greatest working class population, as in Barking, with a Birth-rate of 42·1 per 1,000 population.

One Medical Officer remarks that the number of premature and still-births appears to be increasing, and that this in some measure accounts for the continuous decline in the Birth-rate. Unfortunately, in this country such births are not registered, and it is impossible to ascertain whether this view is correct. However, so long as the births number twice as many as the deaths, there cannot be much cause for alarm. There is a general disposition to view the decline of the Birth-rate with satisfaction, without enquiry as to its cause, the fact that the cause or causes may be anything but satisfactory being entirely ignored.

THE COUNTY DEATH-RATE.

The number of deaths in the Urban Districts recorded in the Tables in the Appendix is 4,523, but, as corrections have not been made for the deaths of paupers in Grays, Harwich, Witham and Wanstead (the Union Workhouses not being in those districts, and no returns having been obtained by the Medical Officers of the deaths of paupers therein, belonging to their districts), we may add 25 as being a very low estimate of such pauper deaths. The deaths in the County Lunatic Asylum at Brentwood, 141 in number, also require distributing. If we consider 80 of these as belonging to the towns, the total number of deaths becomes 4,628, which corresponds to 13·0 per 1,000 population. Deaths in other public institutions in the County which are not accounted for in the Reports would not affect this estimate by ·1 per 1,000, so that 13·0 may be taken as being a very close approximation to the truth.

In the Rural Districts the recorded deaths are 3,564, to which we must add 15 for paupers (not included in the returns of the Medical Officer of Health for the Romford Rural District), and 61 for deaths in the County Asylum. This gives a Death-rate of 13·3 per 1,000, showing that during the past year the mortality has been higher in our very thinly-populated districts than in the towns.

The Death-rate for England and Wales for 1894 was lower than for any previously recorded year, being only 16·6 against 19·0, the rate for the year 1892, the lowest previously registered.

DEATH-RATES FROM ALL CAUSES PER 1,000 POPULATION.

TABLE II.

Death-Rates.	1894.	1893.	1892.	1891.	1890.
Whole of Rural Districts. ...	13·3	15·7	17·7	16·8	15·7
Whole of Urban Districts ...	13·0	16·6	16·7	15·5	15·7
Administrative County	13·1	16·2	17·2	16·1	15·7
England and Wales	16·6	19·2	19·0	20·2	19·5

The cause of this very low rate of mortality is very difficult to explain. No doubt a great deal was due to the favourable meteorological conditions, and it is probable that the epidemics of Influenza which had prevailed during the three preceding years had carried off many aged and feeble people who otherwise would have lived some few years longer. Such epidemics during their prevalence increase the number of deaths, but may cause one or more succeeding years to have Death-rates abnormally low. We cannot hope to have reduced our general Death-rate in the County to 13·1 per 1,000. Before this is accomplished many years will have to be spent in improving the sanitary conditions under which the people live, and in educating the poorer classes, so that they may not only realise the importance of cleanliness, of pure air, pure water

and clean surroundings, but that they may have the desire to avail themselves of all that tends to prolong life and make life worth living.

Whilst the Death-rate generally has been very low, there are several districts within the County in which the mortality has been excessive. In the Urban Districts, those with a Death-rate above the mean for the year are—Braintree (14·5), Clacton (15·1), Halstead (15·7), Maldon (19·6), Romford (14·3), Walton (17·0). It must be remembered, however, that in five districts where the Death-rates are low, no corrections have been made for deaths which have occurred in the Workhouses, hence the rates are useless for our purpose.

BRAINTREE. The average Death-rate for this town during the five years 1890-4 has been 16·6, which is about 1· per 1,000 over the mean for the whole County.

CLACTON. This was constituted an Urban District in 1890, and since then the Death-rate has been below that for the whole County, save during the past year. The mean Death-rate of Clacton for 1891-4 is 15·5, that of the whole County for the same period being 15·6.

HALSTEAD. The mean Death-rate (16·4) in this town for the last five years has been above that for the County, but an epidemic of Whooping Cough has markedly affected the rate for the present year.

MALDON. This ancient borough enjoys the unenviable reputation of having about the highest average Death-rate of any Urban District in the County. For 1894 its Death-rate has been no less than 19·6, and the mean for the last five years is 18·7. The cause of this very excessive mortality requires careful study. If it arises from preventible causes, such causes should if possible be discovered and remedies applied. *Vide* summary of the Report of the Medical Officer and Sanitary Inspector.

ROMFORD. Taking an average of the past five years, the Death-rate here has been below that for the County.

WALTON-ON-THE-NAZE. This is the smallest of the Urban Districts, and is usually the case with small populations, the death-rate varies very considerably from year to year. Thus in Walton the death-rate in 1891 was only 10·0 whereas in the following year it was 22·5. The mean for the 5 years is 15·6,

or about the same as that for the County. It is probably capable of being reduced, as the water supply is far from satisfactory. *Vide* summary of reports.

Amongst the Rural Districts the variations in the Death-rate during 1894 have been much less marked, only the following exceeding 14·0 per 1000. Halstead No. 1 (15·7), Linton, part of (18·2), Maldon (16·1), and Sudbury, part of (15·3.)

LINTON. The two parishes within this County have usually a high Death-rate, but as the population is only 604, too much reliance must not be placed upon it as an index of the sanitary condition.

The other districts mentioned have not usually Death-rates above the average for the County.

DEATHS OF CHILDREN UNDER 5 YEARS OF AGE.

The proportion of children dying under the age of five years to those of persons above that age varies enormously in the different districts, but especially in the towns. In certain Urban districts half the deaths which occur are of children who have not reached 5 years of age. In order to shew the great difference in the proportion of such deaths in the various localities, the percentage of deaths of children under 5 years to the total deaths, for several selected districts, is given below :—

Barking,	Urban...	Out of 100 deaths	54 are children	
			under 5	
Chelmsford	„ ...	„	16	„
Colchester	„ ...	„	32	„
East Ham	„ ...	„	54	„
Grays	„ ...	„	58	„
Leyton	„ ...	„	48	„
Walthamstow	„ ...	„	16	„
Romford	Rural...	„	48	„
Billericay	„ ...	„	29	„
Braintree	„ ...	„	21	„
Chelmsford	„ ...	„	18	„
Epping	„ ...	„	35	„
All the Urban Districts		„	41	„
All the Rural Districts		„	29	„

Reference to previous years' reports will shew that this frightful mortality amongst children is not an accidental occurrence limited to 1894, but a constant condition. As this is a subject which is not referred to in any report, its further consideration must be deferred. It is, however, of vital importance, since the conditions which cause the premature deaths of so many children cannot but prejudicially effect those who survive.

INFANTILE MORTALITY.

Notwithstanding the great excess of deaths of children in certain districts, the Infantile Mortality generally throughout the county is much below that for the whole of England and Wales. The proportion of deaths of infants under 1 year of age per 1,000 births, was in England and Wales 137, in the County only 109, the infantile mortality in the Urban districts being 117 and in the Rural districts 97·5.

INFANTILE MORTALITY.

Deaths of Infants under 1 year of age per 1,000 births.

TABLE III.

	Rural Districts.	Urban Districts.	County.	England and Wales.
1894	97·5	117	109	137
1893	99·	136	122	159
1892	97·	139	128	148
1891	99·5	122	113	149
1890	107·5	143	127	151

Tables IV. and V. give the Infantile mortality in each Urban and Rural district. The variations have not been so extreme as in some previous years. Certain districts continue to have high rates of mortality, and these have been referred to in previous reports. The statistics for the past five years are now available, and their study would lead to interesting results.

In the Report for Walthamstow, Dr. St. Clair B. Shadwell refers to the excessive mortality amongst children in his district, and says:—"Of the total deaths which took place during the year rather more than one-third occurred in

children under one year of age. Children are born that they may become useful members of society, and not to die in infancy. It is not to be supposed that infant mortality can be altogether prevented, but it is certainly desirable that it should be reduced to a minimum. Of course, the original constitution, acted upon by outside influences and conditions, is one of the prime factors in infant mortality, and can, perhaps, only be slowly modified by sanitary measures. On the other hand, to quote from a well-known authority, 'a large proportion of the diseases of early life, some of the most fatal, and some of the most lasting in their influences, have their origin in errors of diet. It is not a question of overcoming a passing difficulty, but one which largely affects the whole future of the child. It is, therefore, of immense practical importance as a matter of national hygiene.'"

DEATHS FROM ZYMOTIC DISEASES.

The deaths attributable to Zymotic disease are, in number, considerably below the average for the five years 1890-4, both in the Urban and Rural portions of the County. The actual number of deaths caused by each disease is given below:—

	Urban Districts.		Rural Districts.		Total.
Small Pox ...	11	...	8	...	19
Scarlet Fever ...	29	...	21	...	50
Diphtheria and Croup ...	225	...	111	...	336
Fevers ...	74	...	44	...	118
Measles ...	102	...	23	...	125
Whooping Cough...	99	...	94	...	193
Diarrhoea ...	133	...	54	...	187
	<u>673</u>		<u>355</u>		<u>1,028</u>

The most striking feature is the large excess of deaths due to Diphtheria. In both the Urban and Rural districts this disease has carried off more victims than Small-pox, Scarlet Fever, Typhoid Fever and Measles combined. About one-third of the deaths due to Zymotic disease are due to Diphtheria.

The Death-rate from the above infectious diseases was, for the County, 1·64 per 1,000 population, whilst for England and Wales it was 1·76. The rates for previous years and for the Rural and Urban districts are given in the following Table :—

DEATH-RATES FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES.

	1894.	1893.	1892.	1891.	1890.
In the Urban Districts ...	1·89	2·82	2·80	1·74	2·57
In the Rural Districts ...	1·35	1·93	1·15	1·32	1·45
In the Administrative County ..	1·64	2·43	2·17	1·55	2·04
In England and Wales ...	1·76	2·47	1·92	1·83	2·03

The next Table gives the Death-rates from each of the seven principal Zymotic Diseases, and from all of them in the Rural and Urban Districts, in the County and in England and Wales.

1894. DEATH-RATES PER 1000 POPULATION.

TABLE IV.

	Small Pox.	Scarlet Fever.	Diphtheria and Croup.	Fevers.	Measles.	Whooping Cough.	Diarrhoea.	Total.
Rural Districts ...	·08	·08	·41	·16	·09	·34	·20	1·35
Urban ,, ...	·03	·08	·63	·21	·29	·28	·38	1·90
Administrative County	·05	·08	·53	·19	·20	·32	·30	1·66
England and Wales ...	·03	·16	·28	·16	·38	·39	·35	1·76

Whilst the proportion of deaths from Diarrhoea, Whooping Cough, Measles and Scarlet Fever has been lower in Essex than throughout the County generally, the proportions from Typhoid and allied Fevers, from Diphtheria and from Small Pox has been higher, the greatest difference being in the Diphtheria Death-rate which is nearly twice that for England and Wales.

All these diseases, save Scarlet Fever, have been more fatally prevalent in the Urban than in the Rural districts, but as the number of deaths is not a reliable index as to the extent to which any one of these diseases has prevailed in the separate districts, their further consideration is deferred to a later section.

DEATHS FROM PHTHISIS.

Tables V. and VI., besides other statistics, give the recorded Death-rate from Phthisis in all the Sanitary districts throughout the County. During the past year deaths from Consumption (of the Lungs) have been excessive in several districts, notably Maldon, Halstead and Witham Urban districts. In several other localities the rate has been above the average. The study of the distribution of this disease throughout the County might tend to throw some light upon its cause. The generally accepted view that dampness of subsoil is the most important factor does not appear to hold good in this County, for very low Death-rates from Phthisis are continuously recorded from low-lying marshy districts, whilst high rates prevail in other districts, which from their position, would naturally be regarded as tending to good subsoil drainage and consequent dryness.

UNCERTIFIED DEATHS.

This subject is only referred to in one report. The probability is that the number of deaths not certified by a duly qualified Medical practitioner is not nearly so large in Essex as in many other counties, still the presence of so many 'Peculiar People' who put no faith in doctors, must be the cause of many deaths being registered without any certificate from a properly qualified person as to the cause of death. In the Report above referred to, the Medical Officer of Health says, "We have a number of 'Peculiar People' in certain parishes, who probably never call in a Medical practitioner, and but few of the deaths amongst these people are investigated by the Coroner. It is to be hoped that Parliament shortly will find time to give effect to some of the recommendations of the Select Committee which recently reported upon the defects in our present system of Death Certification and Registration."

TABLE V.

	URBAN DISTRICTS.	Birth- rate.	Infantile Mortality.	All Causes.	Death-rate from 7 principal Zymotic Diseases.	Phthisis.	Medical Officer of Health.
1	Barking ...	42.1	122	12.6	2.7	.9	F. G. Gibbens, L.R.C.P., M.R.C.S.
2	Braintree ...	22.1	111	14.5	1.5	1.8	P. Stevens, L.R.C.P., M.R.C.S.
3	Clacton ...	27.85	107	15.1	2.3	1.2	J. W. Cook, M.D.
4	Chelmsford ...	22.3	78	11.9	.4	1.8	E. H. Carter, M.R.C.S.
5	Colchester ...	27.3	93	12.7	1.0	1.7	G. Brown, M.D.
6	East Ham... ..	35.5	114	12.9	3.2	.8	A. W. Beaumont, B.A., L.R.C.S.
7	Grays ...	25.1	154	10.1*	1.5	1.3	S. H. Snell, M.D.
8	Halstead ...	24.7	100	15.7	3.2	2.8	G. Gordon Roberts, M.A., M.B.
9	Harwich ...	29.8	138	12.9*	.7	.6	H. Gurney, L.R.C.P., L.R.C.S.
10	Ilford ...	30.95	124	10.0*	1.8	.4	J. Shimeld, L.R.C.P., L.R.C.S.
11	Leyton ...	31.7	125	11.8*	2.5	1.9	A. F. Peskett, M.R.C.S.
12	Maldon ...	28.3	121	19.6	1.3	3.6	E. P. Gutteridge, M.R.C.S.
13	Romford ...	32.3	112	14.3	1.0	.8	A. Wright, M.R.C.S.
14	Saffron Walden ...	23.9	116	12.7	1.1	.6	W. Armistead, M.B.
15	Southeast ...	25.6	140	12.7	1.6	1.0	G. F. Jones, M.R.C.S.
16	Waltham Holy Cross ...	26.6	118	11.8	2.2	.9	J. Damar Priest, M.R.C.S., D.P.H.
17	Walthamstow ...	32.0	130	12.6	1.8	.9	St. Clair B. Shadwell, M.D., D.P.H.
18	Wanstead ...	18.6	55	10.7*	1.1	.8	F. Argles, M.R.C.P., M.R.C.S.
19	Witham ...	30.0	81	10.9*	1.0	2.1	W. G. Gimson, M.D.
20	Woodford ...	24.0	116	11.0	1.2	1.0	W. G. Groves, M.R.C.S.
21	Walton-on-Naze ...	27.3	190	17.0	1.2	.6	A. Somers Ivens, L.R.C.P., M.R.C.S.

* Not corrected for deaths in Workhouse.

TABLE VI.

	RURAL DISTRICTS.	Birth- rate.	Infantile Mortality.	All Causes.	Death-rate from 7 principal Zymotic Diseases.	Phthisis.	Medical Officer of Health.
1	Billericay	27.4	78	11.9*	1.45*	.9*	Fredk. Carter, M.D.
2	Bishops Stortford, pt. of	27.2	98	13.3	.8	1.3	Geo. Turner, M.B., D.P.H.
3	Bratree	23.0	74	12.6	1.05	.8	Thos. Carr, M.R.C.S., L.S.A.
4	Chelmsford	22.9	72	12.8	.55	.6	J. C. Thresh, D.Sc., M.B., D.P.H.
5	Domnaw	23.0	88	13.6	.5	1.0	R. Richmond, M.B.
6	Epping	25.0	125	13.0	1.8	.5	Trevor Fowler, L.R.C.P., D.P.H.
7	Halstead, No. 1	25.2	83	15.7	1.25	1.0	J. H. Ashworth, M.D.
8	" No. 2	23.8	104	13.9	.7	.7	J. B. Bromley, M.R.C.S.
9	Lexden and Winstree	26.2	107	13.3	1.55	1.05	J. W. Cook, M.D.
10	Linton	24.8	133	18.2	1.6	...	W. Armistead, M.B., F.C.S.
11	Maldon	28.9	90	16.1	.9	1.1	J. C. Thresh, D.Sc., M.B., etc.
12	Ongar	25.8	103	13.3	.8	1.1	J. C. Quennell, L.R.C.P., M.R.C.S.
13	Orsett	34.1	105	11.8	1.6	1.0	Rea Corbett, M.R.C.S.
14	Risbridge, part of	26.7	78	10.0	1.4	2.1	W. Armistead, M.B., F.C.S.
15	Rochford	33.2	85	12.7	1.2	.5	G. D. Deeping, L.R.C.P., M.R.C.S.
16	Roydon, part of	No separate return.					B. Ammingson, M.D., M.A.
17	Ronford	33.0	132	13.1	2.9	.8	A. Wright, M.R.C.S.
18	Safron Walden	26.3	92	33.1	.7	1.0	W. Armistead, M.B.
19	Sudbury, part of	21.8	118	15.3	1.0	1.0	J. S. Holden, M.D.
20	Tendring	27.7	108	13.6	1.5	.9	J. W. Cook, M.D.

* Excluded in the County Asylum.

SECTION II.

PREVALENCE OF ZYMOTIC DISEASES.

Since the Infectious Diseases Notification Act has been adopted by every Sanitary District in the County, it is possible to record with a fair degree of accuracy the number of cases of notifiable infectious diseases which have occurred during the year. The diseases which must be notified under the Act are:—Small-pox, Cholera, Diphtheria, Membranous Croup, Erysipelas, Scarlet Fever, and the fevers known by any of the following names:—Typhus, Typhoid, Enteric, Relapsing, Continued or Puerperal. Other diseases such as Measles and Whooping Cough can be added to this Schedule if any Sanitary Authority so desires. In two districts only have these additional diseases been scheduled, and as will be seen later, the experience gained in those districts is not such as will tend to encourage other Authorities to extend the Schedule.

The various Medical Officers of Health throughout the County very kindly forward to the writer, on the first day of every month, returns of the number of cases of Infectious Diseases which have come to their knowledge during the previous month. The sum total of these does not quite correspond with the totals as taken from their annual reports. This, in part, arises from the fact that a number of cases are notified from Asylums and other public Institutions not occupied by persons really belonging to the district (as the Claybury Lunatic Asylum) and they are included in one set of returns but deducted in the other. Again the investigation of an outbreak of disease often leads to the discovery of cases which had not previously been recognized, and some of these may have to be added to the previous month's record after the returns have been forwarded to me. Taking the complete year's returns as being the more accurate, the total number of cases notified or coming to the knowledge of the Medical

Officers of Health, are given below and for comparative purposes the numbers for the previous three years are also added.

	Small Pox.	Scarlet Fever.	Diphtheria and Croup.	Fever, Typhoid and Continued.	Puerperal Fever.	Erysipelas.	Total.
1894	420	2511	1619	648	37	785	6020
1893	235	3952	2009	776	61	1100	8133
1892	33	3013	1613	190	24	797	5970
1891*	11	1402	1257	400	27	413	3510

* The returns for this year did not include Southend-on-Sea, Halstead and Harwich.

This table shews that there has been an increase in the prevalence of Small-pox, an excessive number of cases of Fever, chiefly Typhoid, but only about the average number of cases of Diphtheria and Croup, Scarlet Fever and Erysipelas. Corrected for the increase in population, the rate per 1,000 population of cases of all diseases notified is as under:—

		1894.	1893.	1892.	1891.
Zymotic case-rate in Urban districts	..	11·3	15·6	12·4	8·1
, , Rural	,, ...	6·9	19·7	7·3	5·5

These rates are much lower than obtained during 1893, a little below those for 1892, but higher than for 1891. The returns for the latter year, however, are not complete, since at that time the Notification Act was not adopted throughout the whole county.

As a rule, in both districts the fluctuations, due to the effect of season, have corresponded, rising and falling simultaneously. This indicates some common factor, but whether that factor be rainfall, earth or air temperature, humidity of atmosphere, level of subsoil water, or a combination of these, I must leave at present for others to study.

Small-pox in both Urban and Rural districts attained rapidly its maximum in March, subsided with almost equal rapidity and became extinct in October.

Typhoid and allied Fevers fluctuated in the earlier part of the year, remained high after July and reached the maximum in December.

The Diphtheria curves do not correspond at all closely in the two districts. In the earlier months there was a marked increase in the towns, and an equally marked decrease in the country. In July, August and September, the increase in the Rural districts was greater than in the Urban, but in October there was a much more marked prevalence in the towns.

Scarlet Fever was very prevalent in the winter and spring, then subsided rapidly until July, when a smart outbreak occurred which affected the Urban districts almost exclusively.

Erysipelas throughout the year exhibited greater fluctuations in the towns than in the country districts.

DISTRIBUTION THROUGHOUT THE COUNTY OF ZYMOTIC DISEASES GENERALLY.

In Table VII. are given the number of cases notified in each district, the case-rate per 1,000 population, and the names of the infectious diseases which have most extensively prevailed. Those which have exceeded the means for the two classes of districts (Urban and Rural) are the following:—

				Case-rate per 1,000.
Barking	Urban	...	...	15·
East Ham	,,	...	...	15·2
Leyton	,,	...	...	15·6
Romford	,,	...	...	17·2
Saffron Walden	,,	...	...	13·4
Southend	,,	...	...	14·9
<hr/>				
Bishop Stortford Rural		...	...	8·0
Chelmsford	,,	...	...	8·2
Dunmow	,,	...	...	7·3
Lexden & Winstree	,,	...	...	9·4
Risbridge, part of	,,	...	...	9·9
Roehford	,,	...	...	12·3
Romford	,,	...	...	10·3

The most marked fact exhibited by this table is that Zymotic diseases generally have been most prevalent in the Southern Districts in the county, and, more especially in the Eastern and Western portions, the Eastern including Barking, East Ham, Leyton and Romford Urban and Romford Rural, the Western including Southend Urban and the Rochford Rural District which practically surrounds it.

In a large number of Districts exceedingly low rates have prevailed. These need not be specified here, as a glance at Table VII. enables these fortunate areas to be at once identified.

The Zymotic Death-rate also has been high in most of the districts in which the case-rate has been excessive, but as unfortunately the Tables do not correspond, they do not admit of accurate comparison. Amongst the Zymotic diseases notified, Erysipelas does not find a place in the Zymotic Death-rate, whereas in the latter are included Measles, Whooping Cough and Diarrhœa, which do not find a place in the Zymotic case-rate.

TABLE VII.

Urban Districts.	No. of Cases notified.	No. per 1000 inhabitants.	Diseases most prevalent.
Barking	245	15.0	Small Pox, Searlet Fever and Diphtheria
Braintree	10	2.0	Scarlet Fever and Erysipelas only
Clacton	21	5.7	Scarlet Fever and Diphtheria
Chelmsford	112	10.0	
Colechester	239	6.6	Scarlet F'ever, Diphth'ria and Erysipelas
East Ham	690	15.2	Scarlet Fever, Diphtheria and Small Pox
Grays	173	11.8	Scarlet Fever and Diphtheria
Halstead	39	6.4	S. Fever, Diphtheria & Erysipelas
Harwich	43	6.6	Scarlet Fever
Ilford	178	11.1	S. Fever, S. Pox and Diphtheria
Leyton	1091	15.6	Scarlet Fever and Diphtheria
Maldon	28	5.1	Small Pox and Diphtheria
Romford	151	17.2	Scarlet Fever and Diphtheria
Saffron Walden	82	13.4	
Southend	229	14.9	Scarlet F'ever, Diphth'ria and Typhoid Fever
Waltham Holy Cross	70	11.0	Scarlet Fever and Diphtheria
Walthamstow	546	9.9	Scarlet Fever, Diphtheria and Typhoid Fever
Wanstead	53	6.8	Scarlet Fever and Diphtheria
Witham	4	1.2	
Woodford	109	9.0	Scarlet Fever, Diphtheria and Typhoid Fever
Walton-on-Naze	3	2.0	All Diphtheria
Rural Districts.			
Billericay	139	6.8	Includes 40 cases of S. Pox which occurred in the Asylum.
Bishops Stortford, pt. of	51	8.0	Scarlet Fever
Braintree	82	4.1	Scarlet Fever and Diphtheria
Chelmsford	191	8.2	" "
Dunmow	121	7.3	" "
Epping	157	5.7	" "
Halstead, No. 1	15	3.0	Diphtheria
" No. 2	21	3.5	Scarlet Fever
Lexden and Winstree	211	9.4	Scarlet Fever and Diphtheria
Linton	—	—	
Maldon	88	4.9	Scarlet Fever, Diphtheria and Small Pox
Ongar	74	7.0	Diphtheria and Scarlet Fever
Orsett	88	5.7	Scarlet Fever, Diphtheria, Typhoid Fever and Small Pox
Risbridge, part of	28	9.9	Diphtheria and Scarlet Fever
Roehford	216	12.3	Typh. Fever, S. Fever & Diph.
Royston, part of	3	—	
Romford	173	10.3	Diph., S. Fever and Small Pox
Saffron Walden	79	6.6	Scarlet Fever
Sudbury, part of	30	5.3	Scarlet Fever
Tendring	128	5.1	Scarlet Fever and Diphtheria

*Includes 22 cases which occurred in Claybury Asylum and Dr. Barnado's Home.

CHOLERA.

No case of Asiatic Cholera occurred in the County during the year, but as Dr. Thorne's report to the Local Government Board contains an allusion to a suspected case which occurred in Clacton in 1893, which was not referred to in last year's report, the particulars may be recorded here.

"On September 9th (1893), about midnight, T. P., a female, aged 6 years, residing at "The Flowers Mission Home," Great Clacton (Essex), was attacked with diarrhoea and vomiting. At 7.30 on the morning of September 10th, a medical man was called in and found T. P. suffering from purging, (rice-water stools), and vomiting, urine suppressed, cramps, collapse, with sunken features, pulseless and blue. At 9.40 a.m. the case proved fatal. No post-mortem examination was made in this case. On September 11th, Dr. Cook, the Medical Officer of Health for the district, reported that the matron of the Home and nine other children had been attacked with purging and vomiting, and in the case of one of these (K. W., female, 10 years of age), when the stools were rice-water in character, a sample was sent to Dr. Klein for bacteriological examination. As a result of his examination Dr. Klein reported that the cultivations had proved negative as regards the presence of Koch's comma-bacillus. These cases all recovered; there was no further spread of the disease." In February, Dr. Theodore Thompson, of the Medical Department, visited the Borough of Southend, and conferred with the Health Committee, and the recommendations made by him received the attention of that body; amongst other things the Committee caused to be published the annual public notice relating to the removal of refuse matter, and giving special instructions as to the frequent removal and destruction of refuse from the premises of butchers, fishmongers, and poultry dealers and others. A special notice was also published, requiring the periodical removal from all mews and similar places of manure and other offensive matter.

SMALL POX.

In the Annual Report for 1893, it was stated that this disease shewed a tendency to increased prevalence, and as a matter of fact there was a rapid increase in January and February, the maximum being reached in March. The decline

was equally rapid, and in both the Urban and Rural Districts the last cases were notified in October, the county remaining quite free during November and December. Below will be found a list of the Districts in which the disease occurred, together with the number of cases and of deaths. Nine Urban and twelve Rural Districts escaped without a single case, and in three districts only single cases occurred. Barking, East Ham, Ilford and Leyton, amongst the Urban districts were most severely visited; and Billericay, Maldon, Orsett and Romford amongst the Rural. The disease generally was of a very mild type, the exceptions being at Billericay and Maldon. *Vide below.*

TABLE VIII.

Urban Districts.	No. of Cases.	No. of Deaths.	Rural Districts.	No. of Cases.	No. of Deaths.
Barking	49	5	Billericay	46	13
East Ham	123	4	Braintree	2	0
Grays	4	0	Chelmsford	2	0
Ilford	21	1	Epping	1	0
Leyton	71	0	Maldon	15	3
Maldon	7	1	Orsett	10	1
Romford	8	1	Rochford	1	0
Southend	4	0	Romford	38	5
Waltham Holy Cross ...	3	0			
Walthamstow	11	0			
Wanstead	1	0			
Woodford	3	0			
Totals	302	12	Totals	115	21

BARKING, U. The outbreak of Small-pox in 1893 continued until March, when the disease was again introduced into the district by the occupants of caravans, 13 of whom contracted the disease, many being un-vaccinated. In another instance the disease was introduced by a tramp who was discovered with the eruption upon him. 45 of the 49 cases were removed to the Hospital.

EAST HAM, U. No details of the outbreak are given, but it is stated that many of the cases were of so mild a type, that people in ignorance went about their work whilst suffering from it. The Guardians are strongly recommended to enforce

the Vaccination Acts, and the Sanitary Authority to provide proper means for isolating the patients. The West Ham Small-pox Hospital which was on the borders of this district but is now closed, appears to have been suspected of disseminating the disease.

GRAYS, U., ILFORD, U., SOUTHBEND, U., WANSTEAD, U. and WOODFORD U. No details given.

LEYTON, U. An epidemic occurred here early in the year, 71 cases being notified. Twenty-two cases occurred in one street and 45 cases within a radius of half-a-mile. The following are reported by the Medical Officer as instances of the way in which the disease was spread:—

- (i.)—A man spent his Easter holiday at Willingham, travelling there with the rash fully out on his face, and infecting an inmate of the house where he stayed.
- (ii.)—An undertaker's assistant had occasion to be employed at Plaistow Small-pox Hospital, and contracted the disease in a mild form, but did not think it necessary to isolate himself nor to have medical advice until some days after the rash had developed.
- (iii.)—My attention was drawn by the Sanitary Inspector to a house in Trinity Street, where I found four cases of Small-pox which had had no medical advice and had not been notified.

The parent was summoned for failing to notify, and was fined.

MALDON, U. The disease was introduced by a sailor, who, feeling ill, landed at Harwich, came on to Maldon by train and developed the rash on the following day. Six relatives and neighbours were subsequently attacked. A temporary hospital was put up at considerable expense and no less than £70 was paid as compensation for bedding and clothing destroyed, a sum which would have purchased a small disinfecting apparatus for permanent use.

ROMFORD, U. Three cases occurred in tramps who came into the town suffering from the disease. The other cases were carried by personal infection from cases existing at that time in a neighbouring part of the Rural District.

WALTHAM HOLY CROSS. A farm labourer introduced the disease and infected three other persons. On account of a dispute with the Managers of the Highgate Hospital, the third case could not be promptly removed and the Local Government Board wrote to the Sanitary Authority, to the effect that they "should proceed, without delay, to make provision for any further case of Small-pox that may arise." Whilst a wooden hut was being erected, the last case occurred and was taken in at Highgate. The hut has since been taken down and stored for future use. Beds, bedding and wearing apparel, together with the contents of a barn were destroyed by fire. £5 only was paid as compensation.

WALTHAMSTOW, U. The disease seems to have been imported no less than five different times. Prompt removal to Plaistow or Highgate Small-pox Hospital, and re-vaccination prevented any serious extension. Compensation to the extent of £14 17s. was allowed for bedding, &c. destroyed.

BILLERICAY, R. The disease was introduced into the County Asylum and doubtless on account of the debilitated state of many of those attacked, the mortality was very high. Six cases occurred outside the Asylum, two of them being persons connected with that institution. At the Asylum a Medical Officer was placed in charge of the patients, and the strictest precautions taken to prevent any communication between the infected and other persons, and by these means the disease was confined to the part of the building first infected.

MALDON, R. A smart outbreak occurred early in July. The first person attacked was an old man. He died on June 13th, and the disease being of the malignant type it was not recognized, and death was certified as being due to a form of 'blood poisoning.' Nearly every person who had been in contact with him during his illness, the two undertakers and the woman who performed the last offices for the dead were afterwards attacked. An old farm-house was converted into a temporary Small-pox Hospital. The steps taken to prevent the disease spreading were so effectual that the outbreak was limited to those who had been infected by the first patient.

ORSETT, R. Of the ten cases of Small-pox notified, seven occurred in West Thurrock. The origin could not be traced.

ROMFORD, R. There was rather an extensive outbreak of this disease at Beaeontree Heath, 29 cases having occurred in this locality, nine cases were notified from other parts of the district, some of which were traceable to the Beaeontree Heath cases, the others having received the infection from beyond the limits of the district. In the Beaeontree Heath epidemic, the first case (a fatal one) was somewhat delayed in being notified, so that a considerable amount of mingling amongst the attendants and neighbours had taken place before the Sanitary Officer could intervene. The patient then was too ill to be removed. After the funeral there was also a careless assembling of persons who had been exposed to the infection with others in a beer-house in the locality. After the occurrence of several more cases people became alarmed and there was no difficulty in keeping patients, who were not removed, strictly isolated. Several were removed to the Highgate Hospital. Re-vaccination was extensively resorted to, and the disease ceased to spread after the end of February. Disinfection was done by the Sanitary Inspector after the case was removed or ended, and the bedding burnt, the owner being compensated by the Authority. Seven deaths occurred, five in the District and two in the Hospital.

SCARLET FEVER.

This disease was far less prevalent last year than during 1893, and the type was evidently much milder in character, especially in the Urban districts. These statements are based upon the following comparison of number of cases notified, and of the number of deaths which occurred in 1893 and 1894 respectively :—

	No. of cases notified.			No. of Deaths.			No. of deaths per 100 cases.	
	1893.	1894.		1893.	1894.		1893.	1894.
Urban Districts ...	2572	1742	...	102	29	...	4·9	1·7
Rural ,, ...	1380	769	...	45	21	...	3·3	2·7
County 	3952	2511	...	147	50	...	3·7	2·0

Reference to Table IX. shews that in all the Towns, and in many Rural districts, the type of the disease was of the mildest possible character, but that in a few Rural areas a more serious form prevailed (Braintree, Ongar, Romford). In no single district are cases recorded in which there was a high percentage of deaths, although epidemics occurred in many districts, both Urban and Rural.

TABLE IX.

Urban Districts.			No. of Cases.	No. of Deaths.	Rural Districts.			No. of Cases.	No. of Deaths.
Barking ...	...	...	101	2	Billericay ...	...	...	43	1
Braintree ...	...	...	5	0	Bishops Stortford, pt. of	...	...	36	2
Clacton ...	...	...	10	0	Braintree ...	...	...	29	3
Chelmsford ...	...	...	40	1	Chelmsford ...	...	...	81	1
Colchester ...	...	...	80	0	Dunmow ...	...	...	66	3
East Ham... ..	...	...	305	6	Epping ...	...	...	60	2
Grays ...	...	...	90	1	Halstead, No. 1 ...	...	...	6	0
Halstead ...	...	...	12	2	No. 2 ...	...	...	13	0
Harwich ...	...	...	33	1	Lexden and Winstree	...	...	119	1
Ilford ...	...	...	90	1	Linton ...	...	...	0	0
Leyton ...	...	...	486	11	Maldon ...	...	...	32	0
Maldon ...	...	...	3	0	Ongar ...	...	...	13	2
Romford ...	...	...	47	0	Orsett ...	...	...	26	1
Saffron Walden ...	...	...	32	0	Risbridge, pt. of ...	...	...	8	0
Southend ...	...	...	31	0	Rochford ...	...	...	70	0
Waltham Holy Cross ...	...	...	50	1	Royston, pt. of ...	...	...	0	0
Walthamstow ...	...	...	247	3	Romford ...	...	...	46	3
Wanstead ...	...	...	17	0	Saffron Walden ...	...	...	53	2
Witham ...	...	...	0	0	Sudbury, pt. of ...	...	...	18	0
Woodford ...	...	...	63	0	Tendring ...	...	...	50	0
Walton-on-Naze ...	...	...	0	0					
Totals ...	...	...	1742	29	Totals ...	...	...	769	21

Average No. of Deaths per 100 cases ...	...	2·0
Urban Districts ...	...	1·7
Rural Districts ...	...	2·7

EAST HAM, U. In proportion to the population, Scarlet Fever appears to have been most prevalent here, about seven persons out of every 1,000 having been attacked. The majority of the cases occurred in the North Woolwich Ward, and at the end of the year the epidemic continued.

LEYTON, U. A number of cases occurred in the Union Workhouse, in the Bethnal Green Schools, and in St. Agnes' Orphanage. In two instances parents were summoned for failing to notify the disease, and were fined.

WALTHAM HOLY CROSS, U. The type of disease was distinctly mild *except* in one or two instances where the surroundings were insanitary. Referring to the spread of the disease, notwithstanding notification and the supply of disinfectants, the Medical Officer of Health says:—"It is my firm belief that the maximum benefit to be derived from compulsory and prompt notification cannot be expected when the means of isolating the early cases of dangerous infective disease does not exist."

WALTHAMSTOW, U. Here also "Want of proper means of isolating early cases of Scarlatina was the chief factor in the spread of the disease."

CHELMSFORD, R. A large number of mild cases occurred in this district and careful observation shewed that in each village where the disease prevailed many children suffered from sore-throats, probably Scarlatinal in character, but without presenting any other symptoms of the disease.

DUNMOW, R. In February a small epidemic occurred here in which the throats of certain patients presented the appearance of Diphtheria. Some of the cases were very severe, even malignant in character. Unfortunately no Bacteriological examination appear to have been made, to decide whether the patients undoubtedly suffering from Scarlet Fever were also infected with Diphtheria. A Bacteriological examination of the exudation would speedily have settled this debatable point. Children, when desquamating, were found running about the streets and in two instances parents were summoned before the magistrates for exposing their children whilst in an infectious state and penalties were imposed.

LEXDEN AND WINSTREE, R. The disease was very wide spread, but so exceptionally mild that of over 100 cases notified only one proved fatal.

SUDBURY AND SAFFRON WALDEN, R. In each of these districts epidemics occurred which necessitated School closure for a period.

DIPHTHERIA AND MEMBRANOUS CROUP.

There has been a slight diminution, during 1894, both in the number of cases of Diphtheria and Croup notified, and in the number of deaths, but the Death-rate for the County is twice as high as that for the whole of England and Wales. The type seems to have been of about the usual severity, some 20 per cent. of the total number of cases proving fatal. As in previous years the mortality in the Rural districts has been smaller in proportion to the population than in towns, but in proportion to the number of persons attacked the Death-rate has been higher. This may be due to the disease more frequently assuming a severe type in country places, or, which is most likely, to trivial cases more frequently escaping observation and notification.

PREVALENCE OF DIPHTHERIA AND CROUP.

TABLE X.

Case-rate and Death-rate per 1,000 Population.

	1894.		1893.		1892.		1891.		1890.	
	Case-rate.	Death-rate.	Case-rate.	Death-rate.	Case-rate.	Death-rate.	Case-rate.	Death-rate.	Case-rate.	Death-rate.
Rur. Districts	1·82	·41	2·70	·625	2·16	·36	1·47	·27	1·37	·30
Urb. Districts	3·15	·63	3·82	·74	3·18	·61	3·23	·54	2·27	·45
Administ. County ...	2·57	·53	3·32	·69	2·72	·50	2·31	·42	1·84	·38
Eng. & Wales (Diph. only)	...	·28	...	·30	...	·20	...	·17	...	·11

The difficulty often experienced in deciding whether certain mild throat affections are Diphtheritic or not caused the writer to send out the following circular letter, offering his services to the Medical men throughout the county.

THE DIAGNOSIS OF DIPHTHERIA.

Memorandum from Dr. Thresh.

Recent bacteriological investigations have shown that a considerable proportion of the cases of pseudo-membranous and exudative inflammations of the throat and upper air-passages, commonly considered as diphtheria, and having the anatomical appearances found in diphtheria, are not true diphtheria. These cases may be called pseudo or false diphtheria.

It has also been shown that a considerable number of cases which are apparently false diphtheria prove on bacterial examination to be true diphtheria. While in true diphtheria the mortality is very high and the danger of transmission to others is great, in false diphtheria the mortality is low and the danger of infection slight. The differential diagnosis between true and false diphtheria can be made by bacteriological examination within twelve hours, while without this the differentiation is difficult or impossible.

The importance of such a differential diagnosis is obvious, and Dr. Thresh being desirous of recording observations of cases occurring in the County of Essex, will forward to any medical man a box containing a culture outfit on receipt of telegram or letter, providing the medical man will furnish him with details of the case.

The following are the directions for making Cultures in suspected Cases of Diphtheria.

The culture tubes must be inoculated either before any antiseptic solution is applied to the throat, or at least 12 hours after such application.

The patient should be placed in a good light, and if a child, properly held. In cases where it is possible to get a good view of the throat, depress the tongue and rub the cotton swab gently, but freely, against any visible exudate.

In other cases, including those in which the exudate is confined to the larynx, avoiding the tongue, pass the swab far back, and rub it freely against the mucous membrane of the

pharynx and tonsils. Without laying the swab down, withdraw the cotton plug from the culture tube, insert the swab, and rub that portion of it which has touched the exudate gently but thoroughly back and forth all over the surface of the blood serum. Do not push the swab into the blood serum, nor break the surface in any way. Then replace the swab in its own tube, plug both tubes, put them in the box, and return the culture outfit at once, to Dr. Thresh, Chelmsford.

Within 24 hours of receipt of the tubes, Dr. Thresh will forward his opinion of the nature of the case, by post, or by telegram if prepaid.

As bacteriological examination alone enables the physician to declare when a patient ceases to be infectious, since the Diphtheria bacillus is often found in the throat after the membranous deposit has disappeared, Dr. Thresh will examine cultures made from the throat secretions after the disappearance of the pseudo-membrane, where such is desired.

CHELMSFORD, *Dec. 16th, 1894.*

A number of medical men have availed themselves of my offer, and the results obtained have been considered very satisfactory. In many cases the diagnosis of true Diphtheria was readily made, but in others where the Diphtheria organism was not found it could not be positively stated that the cases were not Diphtheritic, as it is necessary to examine the same throat on several different days to render the negative evidence conclusive. In one instance where two tubes were inoculated from the same throat on successive days, the first inoculation yielded no Diphtheria Bacilli whilst they were found in abundance in the second. It is evident, therefore, that too much reliance must not be placed on the results of a single observation. This subject—the diagnosis of Diphtheria—and the further one of the cause of its excessive prevalence in the County, is well worthy the attention of the Sanitary Committee of the County Council.

Whilst the mortality generally has but slightly exceeded 20 per cent. of the cases, in some Districts it has been much higher. Thus in Waltham Holy Cross 55 per cent. of the cases proved fatal, Halstead (U.) 50 per cent., in Wanstead (U.) 40 per cent., and East Ham (U.) 32 per cent.; Braintree

(R.) and Epping (R.) 32 per cent., Maldon (R.) 35 per cent., Saffron Walden (R.) 50 per cent. On the other hand, the case mortality was very low in Chelmsford (U.) under 2 per cent., Leyton (U.) 11 per cent., and Chelmsford (R.) 7 per cent., *Vide* Table XI. The only district (wholly within the County) in which no case was notified was Braintree (U.) and no case occurred there in the previous year. In several districts only one or very few cases were notified.

BARKING, U. Half the cases here occurred in old houses, and in several instances drainage defects were discovered.

CHELMSFORD, U. The Medical Officer of Health says "Again by far the greater number of notified cases are those of Diphtheria, and I am convinced that with greater care on the part of those who have the nursing and charge of the cases, and with better means of isolation, that the number of cases might be largely diminished."

COLCHESTER, U. "Diphtheria," says the Medical Officer of Health, "still keeps to the front in giving 32 cases for the year, with eight deaths. It is one of the most formidable diseases with which you, as a Sanitary Authority, have to cope, and an impure air with an insanitary soil or bad drainage is its chief factor. The susceptibility of many to take this disease is greatly fostered by a close and warm atmosphere in which families live during the colder months, and the nasal or oral respiratory passages are thus rendered more delicate and open to its incursion. Many families live in rooms sandwiched between two other apartments, and the air they breathe is thus loaded with impurities, which weaken their resistance to such attacks. Ventilation there is none, and if the morbid poison gets access to the throats they become an easy prey to this scourge."

EAST HAM, U. Over half the cases which occurred here were in the Plashet Ward and nearly all these were traced to a school in the West Ham District. As most of the children were of the very poor, they were either unable or unwilling to isolate them, hence the spread.

HALSTEAD, U. The Medical Officer of Health gives a careful report of the small but very fatal series of cases which occurred here.

"The cases of Diphtheria did not all occur in the beginning of the year, and therefore cannot strictly be considered part of the epidemic of 1893, and occurring as the majority did at longer intervals than the generally accepted incubation period (2-6 days) were probably mostly of a sporadic nature. However, it having frequently been noted by observers that isolated cases keep cropping up for some time after an epidemic has been apparently stamped out, one naturally concludes that the cases were connected with those of 1893. Another fact is also clearly demonstrated, viz., for the spores (or bacilli) to have sufficient vitality to transport the disease after lying dormant for some time, either disinfection must have been inefficient, or the case, (or cases), from which the bacilli originated must have been so slight as to escape detection, and certainly so long as the present faree termed "disinfection of clothes, &c.," is proceeded with, the former will be the more likely.

Near every case existed some sanitary defect, or deposit of filth in which the germs of the disease may have lain dormant since previous cases, but whether *post hoc* or *propter hoc* is difficult to decide, as many similar defects occur in other parts of the district in which the disease has not appeared."

MALDON, U. Some of the cases were of a very severe type "and in most instances could be accounted for by the insanitary condition of the surroundings."

ROMFORD, U. On December 7th, the Medical Officer of Health presented a Special Report upon an outbreak of Diphtheria which commenced in the middle of September and continued to the end of October. During this interval 42 cases occurred, all with one exception amongst the children attending a Board School in Albert Road. Certain sanitary defects at the School were being remedied whilst the children were at school, necessitating the use of temporary closets which were very offensive, and the opening out of an obstructed drain. The smell from the sewage gas given off was so offensive that children upon reaching home complained that it made them feel sick and unable to eat. This outbreak which the Medical Officer of Health says "ought not to have happened" caused nine deaths.

LEYTON, (U.) No less than 96 cases occurred amongst the children at the Bethnal Green Schools. The Medical Officer of Health and Inspector examined the Schools, and found that the drains were very defective, and that the sewer gas was escaping from a defective "cleansing arm" into the playground.

WALTHAM HOLY CROSS, U. The cases which occurred here were of a most severe type, more than half proving fatal. The Medical Officer of Health says:—

"The steady increase of diphtheria of late years is a very unwelcome fact, and has been found to prevail more especially in Urban districts, leaving for the time being the sparsely-populated rural areas. The subject is a most serious one and demands the closest investigation and research. It is a disease that will spread by the ordinary means of infection, but the chief causative factors are, in my opinion, defective sanitary fittings, and dampness generally. Throughout this town the house-drains are more often than not in a defective condition, badly jointed, and leaking to a considerable extent, and even comparatively modern drains have been found very imperfect. In the old houses of the town damp-proof courses are absent, and dry areas with concrete basements are not to be found; fungi and moulds rapidly appear upon the walls, and in the rooms which are usually set apart for occupation on the Sabbath day an odour of mustiness is overpowering. It is, therefore, no wonder, that living as many of the community do in houses indifferently drained, into which sewer air obtains an entrance, and a nidus is ever ready for the reception of the diphtheria microbe, that, when the disease manifests itself, its results are so frequently fatal."

To prevent the disease, he adds:—

"In the coming year of 1895, a systematic house to house visitation should again be made by your inspector, and careful notes obtained of all sanitary defects in detail, and above all no plumbing work in new buildings should be allowed, except by certificated persons, or others authorized by the Council."

WOODFORD, U. "In several instances where Diphtheria occurred, an examination revealed a most filthy condition of

the house, its contents and its inmates. Soap and water being seemingly almost unknown quantities. In one house the bedding was so filthy and ragged that I ordered it to be burned, and in this case the man renting the house was earning good wages. Want of personal cleanliness and domestic filthiness are, I am certain, most important factors in the spreading of some of the Infectious Diseases, especially Diphtheria."

WALTHAMSTOW, U. In this district a large number of cases occurred of more than average severity, and the remarks of the Medical Officer of Health with reference to the effect of isolation are worth reproducing.

"Diphtheria is one of the most infectious diseases we have to deal with; it is very fatal, and is frequently spread by what appear to be only slight cases of sore throat. On the other hand, the spread of the disease can be satisfactorily controlled by efficient isolation. Both these facts were graphically illustrated during the year, and were brought before your notice in my report for the month of September, from which I now take the following extract:—

"In an Institution containing 160 young children, a case of diphtheria occurred. On examining the other children, three were found to be suffering from sore throats, which subsequently proved to be true diphtheria. These cases were carefully isolated, and an outbreak of a serious and disastrous nature prevented. On the other hand a case of diphtheria broke out in a private house, means of proper isolation were not available, and five of the inmates were laid low with the disease. This was not all, as a young child who was apparently quite well at the time was sent to a neighbouring house, and was there taken ill; three other persons in this second house developed diphtheria.'"

BRAINTREE, R. Referring to the theory that the prevalence of Diphtheria is in some way connected with the rise and fall of the subsoil water, Dr. Carr says:—

"During quite recent years the theory has been gaining ground that the germs of Diphtheria live in the subsoil, and

that when the subsoil water rises, as it does after heavy rainfall, it drives out the subsoil air and with it the Diphtheria germs. Diphtheria being endemic in one part of the district, I was anxious to add to the evidence now being collected for and against this theory. The Sanitary Authority therefore, at my request, have established an observation well at Coggeshall. Of course it is much too early yet to draw any inferences, but observations will be made, and records kept, which will be of use in the future."

CHELMSFORD, R. Referring to the fact that rapidly fatal cases of Croup often present little evidence of being infectious, the opposite to what might be expected if the disease were truly Diphtheritic, the Medical Officer of Health says, "This is probably due to two causes:—(1) The rapidly fatal course limiting the time during which the infected child is in the house, and (2) The serious nature of the case causing the parents to take unusual precautions to prevent the other children becoming infected." In an outbreak of so-called Diphtheria which occurred in Roxwell parish, the *Bacillus* was sought for in every case but without success. The probability therefore is that the Disease was not Diphtheria, and this is confirmed by the fact that none of the cases terminated fatally.

EPPING, R. Diphtheria is on the increase in this district.

"As regards the period of greatest activity of the disease, the largest number of cases occurred in the months of August and September, but at no time during the year was the District entirely free from the disease. No new light has been thrown upon the mode of origin and spread of the disease by our experiences during the year, but that filth and soil polluted surroundings are conducive to the development of the disease, has been amply confirmed. Only seven of the 43 cases were removed to Hospital. The disease is so rapid in its progress that the condition of the patients often becomes critical, even with early notification, before steps can be taken for removal, and then it would not be justifiable."

MALDON, R. Two cases occurred at Burnham in which the Medical Officer of Health thinks the disease was probably

contracted from a cat. Two children living in different houses and attending different schools were attacked simultaneously. About three days before, these children had, whilst playing together, caressed a cat which was so obviously dying of some disease, that a neighbour took it from them and destroyed it.

ONGAR, R. Diphtheria was the most prevalent Zymotic disease, and most of the cases were associated with gross insanitary conditions.

ROMFORD, R. In this district there is at present no Isolation Hospital and the Medical Officer of Health says :—

“Fifteen deaths were caused by this disease. There being no Isolation Hospital in this district adds greatly both to the difficulty of treating these cases of Diphtheria and of checking the spread of the disease. Many cases are sadly wanting in favourable conditions as to nursing, &c., many occur in crowded ill-ventilated dwellings, so that the advantages of an Isolation Hospital are very manifest in helping both to treat the cases successfully and to prevent the intermingling of the healthy with the sick. The only means open to the Sanitary Officers in order to check the spread of Diphtheria are personal instructions (as a rule disregarded), the free distribution of disinfectants, and the occasional closing of the various schools.”

TENDRING, R. Dr. Cook says of the Bacteriological Diagnosis of Diphtheria :—“I am of opinion that such an examination would be of the greatest advantage as it would clear up whether the malady was Diphtheria or not, and prevent many cases put down as being of that disease from being included in the Annual Summary.

At the same time, I think that too much reliance ought not to be placed on a negative result, but that, in such an event, a second and even a third examination should be carried out. If the Bacillus of Diphtheria is discovered, the case is proved ; but, to my mind, its not being found at the first attempt does not prove its non-existence.”

DIPHTHERIA AND CROUP.

TABLE XI.

Urban Districts.	No. of Cases.	No. of Deaths.	Rural Districts.	No. of Cases.	No. of Deaths
Barking	62	16	Billericay	21	4
Braintree	0	0	Bishops Stortford, pt. of	1	0
Clacton	9	2	Braintree	25	8
Chelmsford	61	1	Chelmsford	73	5
Colchester	35	10	Dunmow	20	2
East Ham	192	62	Epping	51	16
Grays	40	8	Halstead, No. 1 ...	2	0
Halstead	14	7	Halstead, No. 2 ...	2	0
Harwich	1	1	Lexden and Winstree	41	14
Ilford	29	4	Linton	0	0
Leyton	310	34	Maldon	18	6
Maldon	13	3	Ongar	36	5
Romford	78	10	Orsett	17	3
Saffron Walden ...	35	4	Risbridge, pt. of	12	3
Southend	45	6	Rochford	33	5
Waltham Holy Cross	11	6	Royston, pt. of	0	0
Walthamstow ...	144	36	Romford	77	20
Wanstead	20	8	Saffron Walden ...	8	4
Witham	1	1	Sudbury, pt. of	4	1
Woodford	16	4	Tendring	55	15
Walton-on-Naze ...	3	2			
Totals	1123	225	Totals	496	111

	Deaths per 100 Cases .	Cases per 1,000 Population.
Urban Districts ...	20.0	3.1
Rural Districts ...	22.4	1.8
The whole County ...	21.4	2.6

FEVERS.

Continued Fever. The number of cases notified as Continued Fever continues to decline, and it is noteworthy that out of the 26 cases reported in the whole county, just half occurred in the Leyton District, and that not a single case proved fatal.

Puerperal Fever. This form of Fever also has been much less prevalent, 61 cases occurred in 1893, against 37 during the past year. In the former year 42 out of the 61 cases proved fatal, whilst in the latter year, only 16 out of the 37 ended in death. Not only therefore has the disease been less prevalent, but also of a less fatal character.

EAST HAM, U. "Two cases only were notified out of the three deaths, and these were difficult instrumental cases.

Typhoid Fever. As in previous years there is one particular area in which Typhoid Fever has been excessively prevalent, that is the area of the Rochford Union, comprising the Urban District of Southend and the Rural District of Rochford.

	Population	No. of Cases	No. per 1000 population.
Rochford Union ...	33,011	217	6·6
Remainder of County ...	597,322	431	·7

The above table shows that, in proportion to the population, Typhoid Fever is nearly ten times as prevalent in the Rochford Union as in the remainder of the County. One-fourth of the deaths registered from this cause in the County, and one-third of the cases notified occurred in the above-named districts. Whatever the cause, this excessive prevalence over such a small area is a subject which deserves most anxious consideration.

PREVALENCE OF TYPHOID AND ALLIED FEVERS.

TABLE XII.

Case-Rate and Death Rate per 1000 population.

	1894.		1893.		1892.		1891.		1890.	
	Case-rate.	Death-rate.	Case-rate.	Death-rate.	Case-rate.	Death-rate.	Case-rate.	Death-rate.	Case-rate.	Death-rate.
Rural Districts ...	·71	·16	1·10	·22	·80	·09	·74	·20	·70	·16
Urban Districts ...	1·28	·21	1·4	·20	·85	·12	·91	·10	2·04	·21
Administ. County	1·03	·19	1·25	·21	·83	·11	·88	·15	1·4	·19
England & Wales	...	·16	...	·24	...	·145	...	·18	..	·19

COLCHESTER, U. "Enteric or Typhoid Fever gives 22 cases with six deaths—a large percentage. I am happy to say that so far as the oyster is concerned it is quite free from blame in the production of this disease, as in no case could the

cause be traced to the unworthy behaviour of this well-known and appreciated bivalve. The opening of the fishery had no untoward results, and history records no calamity emanating from the great slaughter of these molluscs on the 25th of October last. We may congratulate the ex-Mayor on this most important fact, and hope that His Worship will not seek to ostracise when October comes round an old and valued friend from the chief place in this time-honoured festival."

LEYTON, U. No particulars are given, beyond the statement that 11 cases were imported and that in 40 instances defects were found in the sanitary arrangements of the dwellings.

SOUTHEND-ON-SEA, U. "This disease has not been so generally severe as last year, many cases being of a mild character. My opinion is still as expressed last year that the sewers are mainly the cause. Reference is made to this under "Sewerage." "

WALTHAMSTOW, U. Seventy-four cases were notified as Typhoid Fever, and the deaths registered numbered ten.

Careful inquiry has been made into the circumstances and surroundings of the Typhoid cases. In some instances distinct histories of infection could be obtained. In a large number of instances the information was of the vaguest kind and threw no light on the subject, but it was pretty evident that the sources of infection were various, and were not generally due to local milk or water supplies.

Three cases were due to a polluted well which supplied two houses. The well was closed and water laid on to the houses.

In a considerable number of cases the house drains were found to be defective.

I wish most emphatically to insist on the fact, that Typhoid Fever, under the conditions in which it is met with in the houses of the poor, is an infectious disease, and that under the most perfect sanitary conditions only can the disease be regarded as free from infection. But such conditions, which include suitable surroundings and efficient skilled nursing, are seldom met with outside our hospitals.

Perhaps the following case which came under my notice during the year will best illustrate the above statement :—

Mrs. A. B. was notified to me as suffering from Typhoid Fever. From her I learnt that a son of hers, residing at a distance, was taken ill with Typhoid, she nursed him until his death, and then returned home. Shortly after she became ill, and was found to be suffering from Typhoid ; she was nursed by a daughter, who also contracted the disease. Another daughter who then had to do the nursing developed the same disease.

If the disease had been Small Pox, Diphtheria, or Scarlatina, infection would have at once been admitted, but as the disease was Typhoid, are we to seek for some other explanation ?

WOODFORD, U. In several cases here the houses in which the patients resided were in an insanitary condition. In no case is more carelessness,—to use no harsher word—shewn than in the laying of drains, fitting and fixing soil pipes, and plumbing work in general.

DUNMOW, R. Eleven cases of Typhoid Fever occurred in this district of which six were in Thaxted. The first person attacked came from London suffering from the disease.

“ At the time of the outbreak, the “ Brook ” which drains a large portion of the town was in an insanitary condition and had been so for some time previously owing to want of rain to flush it. The collections of solid matter at various points gave rise to a very offensive odour, and this I looked upon as the cause of the disease. At the Meeting of the Rural Sanitary Authority on October 23rd, I recommended that the “ Boook ” should be converted into a closed sewer, but it was resolved to clean it and leave it in its present open condition.”

ORSETT, R. Fourteen cases occurred here. Six were at Stanford-le-Hope in two families, relations, and living side by side in semi-detached villas. The first case was a lad from a manure barge, who said the water tasted of the manure. The drains were in good order and the water chemically good, but the privies were within five yards of the back doors, and the cesspits as many from the well. The cesspits were well

cemented and appeared sound, but some cement had been broken up to get to repair the pump, and it was thought possible some contamination to the water had occurred through slop-water being thrown down before the nature of the disease was known. Both families used the same water.

RISBRIDGE, R. Essex part of. Three cases occurred here attributed to the use of dangerously polluted water.

ROCHFORD, R. Although about half the number of cases of Typhoid Fever notified in all the Rural Districts in the County occurred in this one District, the Medical Officer of Health makes no special reference to the disease. A glance at the summary of his report however is probably sufficient to explain the cause of the excessive prevalence of the disease in this locality.

ROMFORD, R. Here the association of this fever with foul ditches, over-flowing cesspools and other insanitary conditions is noted.

TYPHOID OR CONTINUED FEVERS.

TABLE XII.

Urban Districts	No. of Cases.	No. of Deaths.	Rural Districts.	No. of Cases.	No. of Deaths.
Barking ...	14	3	Billericay ...	12	2
Braintree ...	0	0	Bishops Stortford pt. of	1	0
Claeton ...	0	0	Braintree ...	3	1
Chelmsford...	3	0	Chelmsford...	7	1
Colchester ...	25	6	Dunmow ...	11	1
East Ham ...	43	7	Epping ...	12	3
Grays ...	14	0	Halstead, No. 1 ...	3	2
Halstead ...	3	1	Halstead, No. 2 ...	0	0
Harwich ...	3	3	Lexden and Winstree...	9	1
Ilford ...	10	1	Linton ...	0	0
Leyton ...	105	11	Maldon ...	9	4
Maldon ...	2	0	Ongar ...	6	1
Romford ...	6	2	Orsett ...	14	3
Saffron Walden ...	2	1	Risbridge, pt. of ...	3	0
Southend ...	128	12	Rochford ...	89	13
Waltham Holy Cross ...	2	0	Royston, pt. of ...	1	1
Walthamstow ...	75	10	Romford ...	8	5
Wanstead ...	7	1	Saffron Walden ...	3	1
Witham ...	2	1	Snulbury, pt. of ...	0	0
Woodford ...	11	3	Tendring ...	2	1
Walton-on-Naze ...	0	0			
Totals ...	455	62	Totals ...	193	40
Mortality per 100 cases in County generally ...				15.7	
" " " Rural Districts ...				20.7	
" " " Urban Districts ...				13.6	

ERYSIPELAS.

From 1891 to 1893 there was a continuous and marked increase in the number of cases of Erysipelas notified, and also in the number of deaths. During 1894 there has been a marked decline, as shewn by the following Table :—

	1894.		1893.		1892.		1891.	
	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
Urban Districts	466	19 ...	703	35 ...	522	11 ...	223	4
Rural ,,	319	25 ...	397	28 ...	275	16 ...	190	17
County ...	785	44 ...	1100	63 ...	795	27 ...	413	21

Witham and Walton-on-the-Naze are the only districts in which no cases were notified.

As a rule, no special reference is made either to the cause or distribution of the disease ; but in one or two instances its association with sanitary defects is recorded.

WALTHAM HOLY CROSS, U. “The marked diminution in the number of cases notified is of interest, the figures for the past three years being as follows :—1892, 18 ; 1893, 17 ; 1894, four. In a manufacturing town like Waltham Abbey, where accidents are of daily occurrence, and open wounds afford ample scope for the microbe of Erysipelas to multiply, the immunity suffered is evidently in great measure due to the aseptic precautions taken in the dressing of such wounds.

Of the four cases referred to as reported in 1894, in each instance no precautions had been taken and there was evidence of skin abrasion, these facts clearly showing Erysipelas to be a preventable disease.”

CHELMSFORD, R. The Medical Officer of Health gives an account of four consecutive cases which occurred in one house, and in which the infection appears to have spread from one person to another, as would an infective fever. It is not uncommon to find a succession of cases in the surgical wards of a hospital, but somewhat rare for such to occur in a family.

DIARRHŒA.

This disease was much less prevalent during 1894 than during either of the preceding years. In 1893 many more

deaths were recorded from Diarrhœa in the Rural than in the Urban Districts—a most unusual occurrence. The mean Death-rate for the County is lower than that for England and Wales. The great majority of deaths were of children under five years of age, and it is worthy of notice that those districts in which the mortality of such children from all causes is so excessive are the districts in which Diarrhœa is most fatal.

DEATH-RATE FROM DIARRHŒA.

	1894.		1893.		1892.		1891.		1890.
Urban Districts...	·37	...	·49	...	·65	...	·35	...	·70
Rural „ ...	·20	...	·92	...	·22	...	·23	...	·21
County of Essex...	·30	...	·73	...	·45	...	·30	...	·47
England & Wales	·35	...	·96	...	·45	...	·45	...	·56

EAST HAM, U. Of the 25 deaths from Diarrhœa, 24 were of children under one year of age, and nearly all happened during the months of July, August and September. The Medical Officer of Health says:—“ I would still urge the necessity of taking samples of milk for analysis, since this is the principal food of these infants.”

LEYTON, U. “ There were 36 deaths as compared with 94 in 1893. Of this number, 34 were under five years of age.”

WALTHAMSTOW, U. Twenty-four of the 27 deaths from Diarrhœa were of children under five years of age. This mortality the Medical Officer of Health refers in part to improper feeding.

“ When parents and nurses learn that their young charges will not thrive on any filthy wash, contained in sour bottles and drawn down their throats through stinking tubes, and that children, to be properly nourished, must be properly fed, then we may hope to see a reduction in the infant mortality.”

Every medical man is aware of the fact that a very large proportion of the illness among children is due to the great ignorance which prevails as to how, and with what, they should be fed. I wish particularly to call attention to the large amount of cheap and useless forms of condensed milk in the market, which are totally unfit for infant food, and from which one of the most important substances (fat) required

in the feeding of infants has been abstracted. The very important part fat plays in the building up of infant life will be recognised when it is remembered that a young infant requires in 24 hours three-quarters as much fat as a grown-up man, and that the deficiency of fat in food is one of the chief factors in the production of Rickets.

MEASLES AND WHOOPING COUGH.

TABLE XIV.

	Measles.					Whooping Cough.				
	1894.	1893.	1892.	1891.	1890.	1894.	1893.	1892.	1891.	1890.
Rural Sanitary Districts	·09	·22	·10	·18	·18	·34	·11	·15	·38	·56
Urban ,, ,, ,,	·29	·24	·61	·40	·33	·28	·32	·56	·30	·82
Administrative County	·20	·23	·43	·30	·26	·31	·23	·44	·34	·69
England and Wales	·38	·33	·46	·42	·42	·39	·33	·43	·44	·45

The Death-rate from these diseases of childhood has been low in both the Urban and Rural Districts, and taking the County as a whole, the mortality from Measles has been only about half that of England and Wales, and the mortality from Whooping Cough has also been below that of the whole country. Epidemics, however, have occurred in a few localities.

In Colchester both the above-mentioned diseases are notifiable, and during the year 346 cases of Whooping Cough were reported, of which 13 proved fatal. Only 19 cases of Measles were notified. The Medical Officer of Health says there is considerable carelessness displayed by parents with regard to the prevention of the spread of these diseases, but he thinks that Notification is tending to produce an improvement in this respect. In East Ham, 32 children under five years of age died from Measles and 11 from Whooping Cough. In Leyton, 36 deaths occurred from Measles, 33 being of children under five years of age.

In Woodford, Measles has been notified for four years ; but in September the disease was removed from the Schedule, upon the advice of the Medical Officer of Health. He says :—
 “After four years’ experience, it did not appear to me that any benefit, so far as limiting the spread of the disease is concerned, accrued from the notification, and, at the same time, the expense was considerable.”

In the Chigwell district of the Epping Rural Sanitary Authority, an epidemic of Whooping Cough occurred, causing 14 deaths.

NUMBER OF CASES OF INFECTIOUS DISEASE TREATED IN ISOLATION HOSPITALS.

Many Small-pox cases were removed to the London Hospitals from the districts bounding the Metropolitan area. In the Urban Districts, 50 per cent. of the Small-pox cases, 8 per cent. of the Scarlet Fever cases, 4 per cent. of the Diphtheria cases, and 15 per cent. of the Typhoid Fever cases were treated in Hospitals. In the Rural Districts, the percentage were 16, 10, 2·6 and 2·5 respectively. Taking the whole number of cases of disease notified, 10·3 per cent. in the Urban and 5·7 per cent. in the Rural Districts were removed to some form of Isolation Hospital.

So far as can be learnt from the Medical Officers of Health’s Reports, and from the County Council Report on Isolation Hospital Accommodation, the districts can be divided into the following groups :—

1. Districts without an Isolation Hospital.

Urban : Braintree, Clacton, Grays,* Ilford, Romford,† Waltham Holy Cross, Walthamstow, Witham, Walton-on-the-Naze.

Rural : Ongar, Romford,† Sudbury.

2. Districts using the Isolation Wards at the Workhouse.
 Bishop Stortford and Dunmow.

3. Districts with Tent or other form of temporary Hospital only.

Rural : Braintree, Lexden and Winstree, Maldon, and Tendring.

* By arrangement, patients from Grays are received into the Hospital of the Orsett Rural Sanitary Authority.

† The Romford Urban and Rural Authorities are combining to erect a proper Hospital.

Urban : Maldon. Wooden structure erected during recent Small-pox epidemic.

4. Districts with some form of permanent Hospital.

Urban : Barking. Corrugated iron and wood.

Chelmsford. Pair of brick cottages.

East Ham. Wood and iron on brick and concrete foundation.

Halstead. A pair of cottages, but a proper Hospital is in course of erection.

Harwich. "Administrative block in centre, with detached portions on each side."

Leyton. Couple of houses altered for purpose.

Saffron Walden. Converted and enlarged from two cottages.

Southend. A house converted into a Hospital, but the Authority is about to erect a proper Hospital.

Wanstead. Partly a temporary structure.

Woodford. Joins with Wanstead.

Rural : Billericay. Brick and slate building erected for the purpose.

Chelmsford. Proper Hospital erected during the year.

Epping. Timber and slated.

Halstead. Made from two cottages.

Orsett. Built for the purpose with detached administrative block.

Rochford. A farm house.

Only four districts possess a modern form of Disinfecting Apparatus.

A reference to the above will shew that the number of districts possessing proper Hospital accommodation for isolating and treating cases of Infectious Disease is very small indeed.

SECTION IV.

SANITARY IMPROVEMENTS CHRONICLED DURING THE YEAR.

In the Reports from many districts, any improvements which may have been effected during the year are not referred

to ; in others, the improvements chronicled are merely works of maintenance. In a fair proportion of districts, however, there has been some work commenced or concluded which must be considered a decided sanitary improvement.

BARKING, U. A steam Disinfecter has been erected. The Isolation Hospital enlarged. Infectious Diseases (Prevention) Act adopted.

COLCHESTER, U. The additions to the Water-works are completed, and the Engineer now says that "The works are second to none in the Eastern Counties. There is a plentiful supply of water, sufficient for many years to come."

GRAYS, U. The new sewerage works are completed, and the house connections are being rapidly proceeded with.

HALSTEAD, U. Very considerable activity prevails here, and the improvements being effected cannot fail to have a beneficial effect. An Isolation Hospital is being erected.

SAFFRON WALDEN, U. A new Isolation Hospital has been erected for the joint use of the Urban and Rural Districts.

SOUTHEND, U. Scavenging is now being done systematically. Works of sewerage of an extensive character have been commenced.

WANSTED, U. An Infectious Diseases Hospital was opened in August, and already has "proved a great boon to the district."

BRAINTREE, R. Two "Berthon" Huts have been purchased to serve as temporary Isolation Hospitals.

CHELMSFORD, R. The water supply to the parishes of Woodham Ferris, Rettendon, East Hanningfield and Runwell has been completed at a cost of about £3,000. A Model Isolation Hospital has been erected, an Ambulance obtained, etc. A code of Bye-laws with respect to new buildings, new streets, nuisances, etc., has been adopted.

LEXDEN AND WINSTREE, R. A portable Hospital has been provided, consisting of two Radcliffe double tents, to contain four beds each, a bell tent with beds for two nurses, and a large van fitted for use as a kitchen. In this van the tents, etc., are stored when not in use.

MALDON, R. The village of Southminster has been supplied with water from a spring at Asheldham. Cost, including water tower, engine, etc., £2,000. The sewerage of Tolleshunt D'Arcy was commenced.

ROMFORD, R. A portion of the parish of Hornchurch, adjoining the town of Romford, has been connected with the Urban system of sewers. Plans have been prepared for an Isolation Hospital, and its erection decided upon.

SAFFRON WALDEN, R. A joint Hospital for the use of the Urban and Rural Districts has been provided.

RESULTS OF SYSTEMATIC INSPECTION.

In many districts the Medical Officers of Health make periodical inspections of the whole or of a considerable portion of the areas under their charge. In other districts the Medical Officer appears only to inspect when requested to give an opinion with reference to some particular nuisance or condition reported by the Sanitary Inspector. In certain districts the Medical Officer of Health or the Inspector visits every house in which a case of Infectious Disease occurs and investigates its origin, and takes such steps as may be necessary to prevent any extension. In other districts the enquiries made do not even enable the Medical Officer of Health to fill in the forms stating whether the patients were under or over five years of age.

The Reports received from the Sanitary Inspectors, either directly or through the Medical Officers of Health, are more numerous and satisfactory than in previous years. A Report has been received from every district save Woodford, but, unfortunately, all are not drawn up on the same lines, and tabulation is rendered difficult. The Table given below, however, affords much food for reflection. For example, in one town with an excessively high Death-rate, about 50 nuisances were abated and 150 houses inspected; whereas in another town of about the same population and with a much more satisfactory Death-rate, about 1,300 cottages were inspected and 112 nuisances abated. This signifies that about ten times as much inspecting is done in the one town as in the other. In the Rural Districts still greater variations will be found, and either the returns furnished are misleading, or the inspection of the district is merely a name. To visit 20, 30 or 40 cottages during a year, in a district containing from 2,000 to 4,000, can scarcely be considered an inspection of the district.

The constant supervision of a district by the Sanitary Inspector is absolutely necessary to maintain it in a fairly satisfactory condition, and should be insisted upon.

URBAN DISTRICTS.

SUMMARY OF REPORTS OF SANITARY INSPECTORS.

	Barking.	Brintree.	Clacton.	Chelmsford.	Colchester.	East Ham.	Grays.	Halsstead.	Harwich.	Ilford.	Leyton.	Maldon.	Romford.	Saffron Walden.	Southend.	Waltham Holy Cross.	Walthamstow.	Wanstead.	Waltham.	Woodford.	Walton-on-sever.
1. Complaints received ...	195	...	...	...	123	...	105	20	106	38	...	14	25	8	...	96	26	11	6	...	6
2. Cottages inspected ...	584	250	...	610	1881	485	560	...	317	627	...	abt. 150	all	1320	...	135	1854	all	60	...	10
3. Lodging houses inspected ...	1	2	...	3	...	...	6	...	...	...	...	...	2	...	...	...	...	...	1	...	sever
4. Slaughter houses inspected ...	4	7	...	8	90	32	18	13	7	4	...	...	9	...	...	4	...	1	4	...	2
5. Bakehouses inspected ...	18	11	...	15	30	44	12	20	11	12	...	1	13	16	27	8	33	5	...	...	3
6. Dairies and Milk Shops inspected ...	36	9	...	...	154	96	10	4	4	25	all	...	7	9	37	...	56	10	4	...	1
7. Cowsheds inspected ...	7	8	...	...	81	27	6	4	2	13	...	1	4	15	...	...	23	all	4	...	...
8. Workshops inspected ...	9	13	...	...	136	...	11	6	...	3	...	...	...	1	...	...	...	...	...	...	...
9. Filthy houses cleansed, sec. 46 Public Health Act, 1875 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10. Houses disinfected ...	109	5	13	4	9	62	7	...	...	2	...	...	17	...	141	...	199	...	...	...	1
11. Overcrowding abated ...	2	...	4	4	79	660	53	30	16	41	240	4	2	38	...	72	359	21	1	...	5
12. Houses placed in habitable repair ...	3	...	...	...	8	2	2	9	...	...	10	...	2	...	...	...	9	...	...	...	...
13. Houses closed ...	...	...	...	...	...	...	22	3	3	13	94	...	7	...	...	...	...	2	...	...	...
14. Houses erected or re-built, for which "Certificates" were applied for ...	...	...	...	...	...	...	...	8	...	...	3	...	2	...	...	...	...	...	...	...	...
15. "Certificates" granted ...	...	5	...	53	...	...	16	5	...	...	...	5	28	...	...	19	...	...	4	...	...
16. "Certificates" granted deferred ...	...	...	...	...	...	...	16	5	...	...	...	5	...	...	...	...	...	...	4	...	...
17. Wells "sunk or improved supplies of water afforded ...	5	...	...	...	...	...	...	...	...	...	15	...	4	1	...	...	...	...	...	...	...

37.	Name of Inspector	F. Martin	J. H. Jevons	A. B. Rob'sn	J. H. Sasse	W. H. H. Pope	J. E. W. Birch	J. Watts	F. Higgins'n	H. Ditcham	F. W. King	H. Miller	P. M. Beaumont	J. Turvey	W. Dickinson	—	C. W. Wiggs	W. W. West	A. Duan.	H. Everard		E. F. Harvey
18.	Wells cleansed or repaired...	2	...	...	...	...	...	...	...	...	...	2	...	2	1	...	...	...	...	...	...	...
19.	Wells closed ...	...	...	...	...	...	...	...	...	...	...	...	...	8	1	...	...	...	...	...	...	...
20.	Defective pumps repaired or new pumps erected to existing wells	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21.	Leaky taps repaired where drawing from public mains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22.	Houses connected with sewers	99	5	...	...	...	...	55	20	33	2100	...	2	28	5	...	30	...	24	100	...	...
23.	Ditto with water mains	99	5	...	...	...	...	500	9	...	2000	15	..	...	1	...	120	...	...	4	...	...
24.	Earth, pail, or improved Privies constructed or existing Privies altered	9	5	...	...	...	...	19	46	...	3	...	36	...	3	...	...	...	...	...	...	...
25.	Privies and W.C.'s repaired; W.C.'s supplied with water	...	38	...	...	...	...	350	25	68	50	25	4	28	4	...	...	682	23	...	4	...
26.	Cisterns cleansed, repaired, or covered ...	74	...	...	...	...	...	40	...	...	...	2	...	35	...	...	...	276	...	...	...	...
27.	Animals improperly kept removed ...	5	...	...	...	...	...	5	3	2	2	6	...	18	4	...	...	19	...	...	...	...
28.	Samples of water taken for Analysis	...	...	...	...	...	...	...	1	4	3	...	...	6	3	...	...	1	...	...	...	...
29.	Samples for food or drink taken for Analysis...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32	...	...	...	...
30.	Compensation paid for destruction of infected bedding	2	19	...	...	...	...	2	...	...	...	...	...	...	...	...	...	14	17	...	...	...
31.	Seizures of unsound Meat, &c.	...	...	...	...	...	...	15	...	...	...	...	£70	8	10	...	...	1	...	...	...	...
32.	Nuisances reported or detected	...	...	...	...	...	...	846	319	160	336	...	1	25	112	...	60	415	33	30	...	...
33.	Nuisances abated	...	...	...	...	...	...	750	310	152	282	...	50	25	112	...	20	415	33	30	...	...
34.	Notices served	...	...	...	...	...	...	716	52	78	109	549	11	15	49	...	20	76	33	1	...	...
35.	Summonses taken out	...	...	...	...	...	...	12	4	...	...	...	...	...	1	...	2	4	...	...	...	...
36.	Convictions	...	...	...	...	...	...	9	3	...	...	...	...	...	...	...	1	4	...	...	...	...

RURAL SANITARY DISTRICTS.

SUMMARY OF REPORTS OF SANITARY INSPECTORS.

	Billiteray.	Bishop Stortford (pt. of)	Bratlinree.	Chelmsford.	Dunmow.	Epping.	Halstead, No. 1.	Halstead, No. 2.	Lexden and Winstree.	Linton.	Maldon.	Ongar.	Orsett.	Mistbridge (pt. of)	Rochford.	Royston (pt. of)	Romford.	Saffron Walden	Sudbury (pt. of)	Tendring.
1. Complaints received	8	10	22	220	6	134	2	9	20	..	32	19	6	6	99	2	43	15	..	16
2. Cottages inspected	..	450	1834	904	?	1376	whole dist.	whole dist.	434	47	50	23	419	250	111	all	120	2702	904	40
3. Lodging-houses inspected	3	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
4. Slaughter-houses inspected	4	12	11	19	14	30	4	5	10	1	2	4	..	1	4	..	6	12	1	2
5. Bakehouses inspected	8	..	1	26	27	45	10	11	23	..	2	..	17	2	..	6	..	35	8	..
6. Dairies and Milk Shops inspected	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Cowsheeds inspected	2	..	..	32	38	8	4	3	..	2	1	..	17	1	3	..	3	11	..	..
8. Workshops inspected	6	10	11	59	40	68	4	3	..	2	1	8	27	20	5	4	..	14	..	..
9. Filthy houses cleaned, sec. 46 Public Health Act, 1875	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10. Houses disinfected	13	28	33	105	62	99	2	2	3	..	1	..	3	12	34	1	17	1	..	1
11. Overcrowding abated	1	6	2	13	3	6	15	16	2	1	1	1	18	2	..	..	..	26	7	34
12. Houses placed in habitable repair	..	16	..	67	7	39	2	..	35	1	8	3	38	..	..	3	27	5	1	3
13. Houses closed	..	..	..	22	2	13	2	1	6	..	2	..	23	..	..	..	4	2	..	4
14. Houses erected or re-built, for which "Certificates" were applied for	17	17	2	13	7	123	6	2	..	..	3	8	50	7	..	..	52	6	2	16
15. "Certificates" granted	10	8	..	13	7	66	6	2	..	..	3	5	50	7	..	..	14	2	2	16
16. "Certificates" deferred	9	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	2
17. Wells sunk or improved supplies of water afforded	..	..	..	1	2	22	..	..	..	..	..	1	3	..	..	..	..	..	..	..
18. Wells cleansed or repaired	2	..	2	10	..	7	..	1	9	1	1	..	4	3	..	..	..	4	1	..

37.	Name of Inspector	H. G. Clark	E. T. Watts	H. H. Nairn- Kirell	I. C. Smith	J. Hamilton	J. H. Bell	C. Wash	— Stewart	F. W. Chappell	H. G. Keyw'd	E. J. Thomas	G. Watts	L. Littleton	C. E. Judd	H. N. Wood- ward	C. S. Hamilton	W. Dickinson	J. S. Robinson
19.	Wells closed ... ..	...	...	1	...	...	4	...	...	...	...	...	2	...	...	...	...	...	...
20.	Defective pumps repaired or new pumps erected to existing wells	2	2	4	7	5	4	2	5	1	6	...	4	2	...	...	...	10	...
21.	Leaky tops repaired where drawing from public mains	...	...	7	203	...	...	...	...	...	...	...	...	...	...	...	...	2	...
22.	Houses connected with sewers	...	...	...	13	...	224	8	3	...	...	...	...	...	15	1	2	1	...
23.	Ditto with water mains	...	10	...	226	...	...	...	...	...	22	...	34	...	...	...	...	...	...
24.	Earth, pail, or improved Privies constructed, or existing Privies altered ...	12	36	14	39	24	30	15	75	1	2	4	36	...	13	3	133	12	...
25.	Privies and W.C.'s repaired; W.C.'s supplied with water	19	16	36	37	4	54	...	...	7	...	2	34	...	...	1	1	...	...
26.	Cisterns cleansed, repaired, or covered ... ..	...	...	...	5	...	4	...	...	...	6	...	12	...	...	...	...	3	...
27.	Animals improperly kept removed	1	...	2	...	26	16	2	1	14	4	2	4	1	...	...	10	2	...
28.	Samples of water taken for Analysis	2	1	3	28	14	7	2	4	...	10	2	30	...	1	...	17	2	...
29.	Samples of food or drink taken for Analysis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30.	Compensation paid for destruction of infected bedding	...	...	...	...	...	60s. 2 box's of kip'rs	...	...	...	£19	...	...	...	...	35s.	£1 10 11	...	...
31.	Seizures of unsound Meat, &c.	...	...	...	£1 8 0	£1 2 0	...	...	...	...	...	...	...	...	...	...	...	...	...
32.	Nuisances reported or detected	20	235	76	305	116	134	37	35	16	43	18	270	23	69	4	...	143	23
33.	Nuisances abated	24	210	72	320	116	...	37	85	14	21	16	260	20	69	4	280	143	20
34.	Notices served	35	24	58	267	48	465	37	56	9	14	8	250	22	69	4	149	89	16
35.	Summonses taken out	1	...	...	2	4	8	...	1	...	1	...	1	...	...	...	3	...	...
36.	Convictions	1	...	...	1	4	5	...	1	...	...	...	1	...	...	...	...	...	...
37.	Name of Inspector	H. G. Clark	E. T. Watts	H. H. Nairn- Kirell	I. C. Smith	J. Hamilton	J. H. Bell	C. Wash	— Stewart	F. W. Chappell	H. G. Keyw'd	E. J. Thomas	G. Watts	L. Littleton	C. E. Judd	H. N. Wood- ward	C. S. Hamilton	W. Dickinson	J. S. Robinson

INSPECTION OF WORKSHOPS AND WORKPLACES.

This duty does not appear to be very efficiently performed. In very few Reports is the subject mentioned. In Colchester a special Inspector was appointed for a limited period, and all the workshops and workplaces visited and registered. A large number of sanitary defects were found.

THE HOUSING OF THE WORKING CLASSES.

The number of houses closed under the Housing of the Working Classes Act in each district is given in the summarised Reports of the Sanitary Inspectors. The following references are made to this subject :—

BARKING, U. A Special Report was made on the condition of 29 dilapidated cottages. The older class of property is becoming more dilapidated every year.

BRAINTREE, U. Some of the cottages are badly built having damp walls, without through ventilation, and having no fireplaces or efficient means of ventilation in the bedrooms.

EAST HAM, U. In some cases the houses are badly built, and some of the older ones have leaky roofs, dirty walls, and worn-out floors, which render them hardly fit for habitation.

HALSTEAD, U. A special inspection made. *Vide* summary of Report of Medical Officer of Health.

WALTHAM HOLY CROSS, U. "Since the introduction of Cordite many fresh hands have been taken on in the Government Works, and it is only natural that these individuals should seek dwellings in proximity to the scene of their labours ; but house-building proceeds very slowly, and, in fact, is not adequate to accommodate these immigrants. The outcome of this is that single men frequently obtain lodgings

with families whose dwellings are already barely adequate for the existing inmates, and married men eagerly seize cottages vacated by persons who have discarded them, either by reason of dilapidation from age or sanitary structural deficiency; hence very many houses are tenanted which nothing short of total demolition would satisfy the requirements of the Public Health Act. Certain landlords, having the knowledge that some of their house property has already been brought to your notice as being unfit for habitation, naturally refrain from undertaking the most urgent elementary structural repairs, thereby endangering in some cases both life and limb.

This is no new statement of facts, for by reference to several former Reports you will find that this condition of affairs, in town and country alike, has been gradually assuming its present alarming magnitude, and if permitted to increase, the task of betterment must become yet more difficult to grapple with. It is not my desire that these necessary works should be carried out at one and the same time: this would not only be impolitic, but impracticable: but, nevertheless, a commencement should be made with the most glaring instances, and then step by step; by this means the whole matter could be dealt with."

EPPING, R. "Rheumatism and Heart Disease prevail largely amongst labourers and Arthritic Rheumatism amongst their wives, whilst their children suffer extensively from Acute Rheumatism; the causes being, amongst the men, the exposure to which they are necessarily subjected, together with the heavy character of their work; the cause amongst the women and children being the miserably cold, damp and draughty cottages in which they live, the latter being also a cause of the somewhat high infantile mortality in the district.

First amongst sanitary requirements should be placed better houses for the working classes, and whilst I would not for a moment wish to under-value the great importance of proper drainage and a wholesome water supply, it is simply idle to look for any material improvement in the health of the district whilst so many of the working classes have to live in houses which, as regards warmth, dryness, and air-space, their more fortunate brethren would not consider to be fit for the lower animals. It is customary in the present day to hear

much of popular lectures upon "Elementary Hygiene," "The Laws of Health," and other kindred subjects ; but until the working classes have better houses to live in than is the case at present, it is impossible that such lectures can be productive of much good.

HALSTEAD, R. There is room for much improvement in the cottage accommodation.

ORSETT, R. Many cottages have been condemned and closed, and many others put into a good state of repair.

SPECIAL INSANITARY CONDITIONS.

WATER SUPPLIES, POLLUTED OR INSUFFICIENT IN QUANTITY.

CLACTON, U. The Water Company has not done much to provide the increased supply needed by this rising town. A larger main is, however, being laid, which "may have the desired effect, if the supply from the wells is sufficient."

ILFORD, U. Bennets Castle Lane, says the Inspector, has no available supply of wholesome water. The present source is from shallow wells or tubs sunk in a ditch. Every sample taken for analysis proved to be seriously polluted.

LEYTON, U. The supply here was very intermittent quite early in the year.

WALTHAM HOLY CROSS, U. "Taking into consideration the fact that the East London water mains are laid in almost every street, that deep wells can be reckoned as under a dozen, all the surface wells analysed, without exception, grossly polluted with "previous sewage contamination," such a period of time (as has elapsed since the mains were laid) should have been ample for all necessary connections to have been completed had this important matter been proceeded with in a thorough and systematic manner."

WITHAM, U. It will be necessary for the District Council to take into early consideration the water supply. This at present consists of too small a proportion of water from the Artesian Well, and is by far too hard for domestic purposes.

WALTON-ON-NAZE, U. The dual supply here (*vide* summary of Medical Officer of Health's Report) is very unsatisfactory.

BILLERICAY, R. The question of a water supply at Slyee's Gate and South Green (Great Burstead) has been before the Authority, and though the matter is urgent, nothing has been decided upon. The present supply is very polluted. The cost would be small. Vange, Basildon and Laindon are all badly off for water; but the cost of obtaining a supply appears to be prohibitive.

BRAINTREE, R. Open wells, liable to pollution, supply several districts.

CHELMSFORD, R. Though a great deal has been done in this district, certain areas are still dependent upon ponds and field ditches for water.

EPHING, R. 163 houses in Epping are still supplied by shallow wells, notwithstanding that the Herts and Essex Company's mains ramify within the district. "The sanitary condition of Epping, both as regards drainage and water supply, urgently calls for alteration."

ORSETT, R. Laindon Hills is the worst supplied village in the district. Dry Street depends upon a so-called spring which is only a pond, and constantly liable to pollution.

SAFFRON WALDEN, R. Improved water supplies are required for Elmdon and Newport, and the present supply to Langley is not satisfactory.

SUDBURY, R. Deficient and impure water supplies exist in the parishes of Otten Belchamp and Pentlow. Pond water is used in Borley and parts of Henny, Alphanstone and Walter Belchamp.

SEWERAGE, DRAINAGE, ETC.

The Medical Officer of Health for Braintree Urban District Council says many of the water-closets are supplied by a pipe coming directly from the main. The pans of the closets are often found in a filthy condition on account of insufficient flushing.

At Grays the Medical Officer of Health says cisterns are insisted upon by the South-East Essex Water Company, and these are usually so badly placed that the water undoubtedly becomes fouled whilst resting in them.

The Medical Officer of Health for Halstead, referring to the direct connection of water mains to closet pans and the danger of disseminating Typhoid Fever, says :—

“ By backward suction, the mains become contaminated. The attention of the Board was drawn to the matter, and the new Bye-laws being then in course of construction, one was framed to, if possible, meet the case. This was worded so that the Bye-law relative to the water supply of W.C.'s in new buildings should also apply to existing w.c.'s and be retrospective. This, unfortunately, when referred to the Local Government Board, was found to be *ultra vires*; and although a deputation waited upon the Local Government Board at Whitehall, laying the full facts of the case before them, nothing further was gained. The danger of the existing state of things was allowed, and the Local Government Board agreed that it could not well be overstated, the late epidemic at Worthing having been spread largely by this very means; but still the law as at present constituted does not allow of the proposed amendment.

It was, however, suggested that a Resolution embodying these facts should be forwarded to the Local Government Board, which would strengthen their hands, should further legislation be attempted.

It certainly appears anomalous that what the larger towns and boroughs are allowed by private Acts should be impossible for small Urban Districts, who, though unable to go to the expense of a special Act, are quite as desirous of obtaining this very necessary protection to their health.”

The Sanitary Inspector for Ilford draws attention to the fact that three gallons of water is required for effectually flushing W.C.'s, and recommends that cisterns of this capacity should be insisted upon. The long-hopper closet pan is also, deservedly, condemned, it being of such a shape as not to allow the excreta to fall directly into the water without fouling the sides.

The pollution of the River Blackwater is referred to by the Braintree R. Medical Officer of Health, and of the River Roding by the Epping Medical Officer of Health. In several Reports, Brooks are stated to be polluted by sewage; practically these are becoming open sewers.

Nuisances arising from Offensive Trades appear to be rare. The Chelmsford Rural Sanitary Authority has had a considerable amount of trouble with a Manure Works in the district, and has applied to and obtained from the Local Government Board Urban powers enabling Bye-laws for regulating such trades, to be enforced.

Many insanitary conditions are mentioned in the Epping Rural District. New sewerage works are required for Chigwell; also for Potter Street, Harlow, Sheering Street, etc.

In the Ongar Rural District, an improved system of drainage is required for Chipping Ongar and Moreton, and an improved water supply is wanted throughout the district.

In the Orsett Rural District, the Medical Officer of Health says that "in no parish is there a proper sewerage system. Many of the Burial Grounds are overcrowded."

In Rochford Rural District, many of the numerous insanitary conditions mentioned by the Medical Officer of Health in his Report for 1893 continue unabated. At Great Wakering, for example, the part known as New Town "continues in the same unsatisfactory state to which I referred last year. Cesspools and wells for drinking water flourish side by side."

In the Romford Rural District, many places are in want of sewers and better supplies of water. Impure pond water is used in portions of Havering. Cesspools overflowing into ditches cause serious nuisances.

In the Tendring Rural District, several parishes require sewerage. Great Bentley, Frinton, Great Oakley and Weeley are especially referred to. The outfall at Brightlingsea requires improvement.

METEOROLOGICAL OBSERVATIONS.

The monthly means of the observations made at Chelmsford are recorded in Table XV. The following rainfall

records are given by the Medical Officers of the Districts referred to :—

		Walthamstow.		Waltham Holy Cross.		Billericay.
January ...	...	3·15	...	2·01	...	
February ...	...	1·73	...	1·68	...	
March ...	...	1·34	...	·94	..	
April ...	...	1·77	...	1·75	...	
May ...	...	1·84	...	1·54	...	
June ...	...	1·87	...	1 65	...	
July ...	...	3·89	...	3·52	...	
August ...	...	3·33	...	2·57	...	
September ...	...	1·07	...	·98	...	
October ...	...	4·15	...	3·50	...	
November ...	...	2·71	...	3·04	..	
December ...	...	2·50	...	1·96	...	
Total ...	...	29·35	...	25·14	...	25·36

TABLE XV.

METEOROLOGICAL DATA AND PREVALENCE OF CERTAIN INFECTIOUS DISEASES.
For Year ending December 31st, 1894.

		METEOROLOGICAL DATA.				INFECTIOUS DISEASES NOTIFIED.					TOTAL.
		Mean Temperature.	Mean Daily Range.	Relative Humidity	Rainfall.	Small-pox.	Diphth-eria and Croup.	Fever.	Scarlet Fever.	Erysipelas.	
January	...	36.3	11.3	93	2.5	45	117	32	269	87	550
February	...	40.5	12.6	88	1.2	90	127	37	235	78	567
March	...	43.6	19.1	84	.8	137	146	33	274	93	683
April	...	50.3	19.7	78	1.7	49	143	14	260	57	523
May	...	50.2	18.6	72	1.5	38	107	37	225	64	471
June	...	56.1	23.2	75.5	1.9	34	124	48	202	49	457
July	...	62.5	19.4	79	2.8	11	89	59	151	52	362
August	...	60.15	16.3	78	2.0	3	106	81	176	62	428
September	...	53.7	15.0	83	2.1	5	135	72	220	53	485
October	...	49.6	11.3	88	3.1	3	188	84	242	72	589
November	...	45.4	11.4	92	3.1	0	163	78	163	54	458
December	...	40.2	10.8	94	1.7	0	150	97	94	41	382
Means and Totals		49.1	15.7	84	24.4	415	1595	672	2511	762	5955

URBAN SANITARY DISTRICTS.

1. BARKING.

Medical Officer of Health, F. E. GIBBENS, M.R.C.S., &c.

Population 1891	...	...	14,301
„ 1894	...	...	16,500
Increase	...	...	2,199
No. of Deaths ...	...	...	198

Corrections—Workhouse + 21. Total Deaths, 219.

	1894.	1893.	1892.	1891.	1890.
Uncorrected Death-rate	12·6*	18·1	18·5	17·2	17·0
Zymotic „	2·7	4·7	2·9	2·9	3·3
Birth-rate ...	42·1	39·1	43·1	43·4	38·2
Infantile Mortality	122·	155·6	152·0	146·0	146·0
Zymotic Case-rate	15·0	17·9	3·1	7·3	16·1

*Corrected.

The report is type-written and is accompanied by a spot map showing the distribution of the Infectious Diseases notified during the year. Such maps are not only interesting, but very useful.

The water supply has been satisfactory; the scavenging has been efficiently carried out.

The cottages have been systematically inspected, and a special report submitted to the Authority on 29 houses in Union Street. Some of the older property is becoming year by year more dilapidated, and active measures will soon be required to get it put in proper order.

The Sanitary Improvements effected during the year include—

- (1) Closing of the Congregational Burial Ground.
- (2) Steam Disinfector purchased and erected.
- (3) Adoption of the Infectious Diseases (Notification) Act, 1890.
- (4) Addition of Wards for four beds at the Isolation Hospital.
- (5) Sewering of part of East Street and Hardwick Street.
- (6) Many shafts erected to ventilate the Sewers.
- (7) Prosecution undertaken to prevent Fish manure being carted through the district in imperfectly covered vehicles, with the result that the nuisance ceased.

Infectious Diseases—

Forty-nine cases of Small-pox occurred, the disease being introduced by tramps and Van dwellers. The last case was notified in August. Diphtheria was especially prevalent during March and April, and nearly half the cases occurred amongst residents in the “old class of property.” The streets which remained comparatively free during the Epidemic of 1893, again escaped.

The precautions taken to prevent the spread of Infectious disease, include the supplying of disinfectants with instructions for use, white-washing, papering, etc., notices to schools, laundries and pawn-shops. The steam disinfector has been freely used for disinfecting bedding, clothing, etc.

No reference is made to any action taken under the Adulteration Acts.

A summary of work done by the Sanitary Inspector is included in the Report.

2. BRAINTREE.

Medical Officer of Health, PERCY R. STEVENS, M.R.C.S., &c

Population 1891...	...	...	5,061
„ 1894...	...	...	5,303
No. of Deaths ...	...	...	66

Corrections—Add Deaths in Workhouse 6, total 72.

	1894.	1893.	1892.	1891.	1890.
Death-rate ...	14·5	18·4	18·2	15·6	16·4
Zymotic Death-rate	1·5	1·4	·4	1·5	1·1
Birth-rate ...	22·1	23·3	24·5	25·8	22·3
Infantile Mortality...	111·	93·0	64·0	91·0	148·0
Zymotic Case-rate ...	2·	1·0	·6	3·4	?

The Report is in manuscript, and somewhat brief.

The water supply, which is derived from a well 430 feet deep, is constant. The sewage is dealt with by broad irrigation.

Several houses were visited during the year and most of the defects found were rectified.

Only 10 cases of Infectious Disease were notified during the year, five of which were Scarlet Fever and five Erysipelas.

Many Sanitary defects are referred to. These include :—

(1) Water-closets flushed directly from the mains. (2) Insufficient ash-pit accommodation. (3) Damp and defective cottages. (4) The want of an Isolation Hospital.

The Inspector's Report shows that he has inspected a large number of premises, including 13 workshops. The 27 nuisances reported or detected were all abated without serving a single formal notice. Thirty-eight W.C's have been repaired or supplied with water. No samples of food or drugs were taken for analysis.

3. CLACTON.

Medical Officer of Health, J. W. COOK, M.D., Colehester.

Population 1891	...	...	3,584
„ 1894	...	...	3,768
Increase	...	...	184
No. of Deaths ...	...	...	57

Corrections + 1 (Workhouse) — 4 (Visitors) Corrected 54.

		1894.	1893.	1892.	1891.
Death-rate	... ..	15·1	15·8	16·2	15·1
Zymotic Death-rate	...	2·9	3·2	1·1	2·2
Birth-rate	... ..	27·8	33·0	30·0	29·4
Infantile Mortality	...	107·	97·6	73·4	121·0
Zymotic Case-rate	...	5·7	20·9	8·9	11·1

The Report is printed.

Nine cases of Diphtheria only were notified during the year, against 61 in 1893. The new sewer in the Great Clacton and Magdalene Green districts is of immense benefit, and to its use Dr. Cook attributes the very large diminution of Diphtheria in those localities.

Scarlet Fever was several times introduced by visitors. Half the cases notified occurred in a Boarding School. The practice of taking children recovering from Infectious Diseases to Clacton for a bracing change is responsible for the spread of these complaints. The notification of Phthisis, Measles, and Whooping Cough is advocated. With reference to Phthisis, Dr. Cooke, says, "There can be no doubt of the risk incurred by visitors in occupying lodgings only filled with Phthisical patients, probably the day before their arrival."

Referring to subject of Isolation, the Medical Officer of Health says :—

"The provision of an Isolation Hospital is much wanted in such a sea-side resort as Clacton-on-Sea, and, on my advice you applied to the County Council to take under its consideration the provision of one to include your district, under the Isolation Hospitals' Act, 1893; but, unfortunately, instead of mentioning the adjoining district for combination, only a few of the parishes of the district were detailed, and it could only have been expected that these parishes would object to be joined on to Great Clacton. As I have previously said, the expense of providing an Isolation Hospital for Great Clacton alone would be found considerable, but, if such institutions are to be erected in this county, I feel I am right in my formerly expressed opinion, that one on Elmstead Heath would serve for the districts of Great Clacton, Walton-on-the-Naze, Tendring, Lexden, and Winstree. I would suggest that such a combination should be proposed to the County Council."

The Water Company have not yet done much towards providing an increased supply of water to the town, but are laying down a larger main.

The collection of house refuse is not satisfactory, and movable ash-boxes are recommended to facilitate the collection.

The provision of a Cemetery is a pressing requirement.

A Report has been issued by the Local Board, giving a full account of the work done in the Surveyor's and Inspector's department, from 1891 to 1894 inclusive, but no separate Report for the year 1894. From it we learn that since the completion of the Great Clacton Sewerage Scheme, 281 houses have been drained to the sewer, 146 privies have been converted into water closets, 52 cesspools have been abolished, and 136 houses have been prevented from polluting adjacent ditches with their slop water.

The Board is stated to have received many and serious complaints, both as to the quality and insufficient supply of water to the town.

4. CHELMSFORD.

Medical Officer of Health, E. HUNT CARTER, M.R.C.S., &c.

Population 1891	...	...	11,008
„ 1894	...	...	11,422
Increase	...	...	414
No. of Deaths	...	...	180

Correction—44 deaths of aliens in Workhouse and Infirmary.

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate	11·9	12·7	18·6	15·5	15·7
Zymotic „ ...	·4	1·1	2·8	·9	1·4
Birth-rate	22·3	29·15	24·7	26·9	26·1
Infantile Mortality ...	78·0	76·0	124·0	n. r.	122·0
Zymotic Case-rate ...	10·0	9·6	14·0	8·0	6·7

The Report is printed with the exception of the Tables of Deaths, Births, and new cases of Infectious Sickness, which are in Manuscript. A summary, however, appears in the Report.

The mortality statistics are very favourable. Diphtheria of a mild character has been very prevalent.

A few cases of overerowding have been remedied. No house has been condemned as unfit for human habitation. The quality of the water supply continues satisfactory, but the quantity has, at times, caused some anxiety.

The cottages used as an Isolation Hospital have only received two patients during the year. Mr. Carter thinks there is a disinclination on the part of the inhabitants to avail themselves of its benefits. He, however, believes that this will pass away, and that soon more accommodation will be required.

The Inspector's Report shows that a systematic inspection is made monthly of Common Lodging Houses, Slaughter-houses, Dairies, Milkshops, etc. No action appears to have been taken under the Factories and Workshops' Act, or under the Adulteration Acts. No record is kept of complaints received, but 96 nuisances were reported or detected, and all abated without legal proceedings being requisite.

5. COLCHESTER.

Medical Officer of Health, GEORGE BROWN, M.D.

Population 1891	...	...	34,559
„ 1894	...	...	36,414
Increase	...	...	1,855
No. of Deaths	...	..	472

Corrections—11 aliens.

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate	12·7	15·5	19·7	16·6	16·6
Zymotic „	1·0	2·0	1·6	1·1	1·25
Birth-rate ...	27·3	28·0	27·7	27·4	30·6
Infantile Mortality	93·4	128·0	174·0	98·0	147·0
Zymotic Case-rate	6·6	12·0	15·1	5·2	4·0

The Report is printed.

The statistics of Mortality and of Infectious Sickness are so satisfactory that Dr. Brown says the year 1894 may be fitly termed an *Annus Mirabilis*.

Diphtheria still keeps to the front in giving 32 cases for the year, with eight deaths, and the Sanitary Authority are advised that it is one of the most formidable diseases with which they have to cope. Overcrowding in badly-ventilated rooms is especially referred to as fostering a susceptibility to the disease.

Typhoid Fever (22 cases) caused six deaths. There were no reasons for suspecting that any were due to infection from the Colne Oysters.

Houses in which Infectious Diseases existed have been inspected, etc., but there is still a great deal of carelessness and indifference amongst some of the population with regard to preventing the spread of these diseases, especially in the case of Whooping Cough.

The local Inspector of Factories and Workshops has been most assiduous in his duties, and his report on the work done in his department has already been referred to as shewing the importance of such supervision.

During the year the Infectious Hospital has been greatly improved. Twenty-six cases were admitted during 1894. The drainage of Old Heath now approaches completion, and the Borough sewers have been extended in various directions. The sewage averages about 900,000 gallons a-day, and this treated with sulphate of alumina and lime yields about 1 ton of pressed sludge or portable manure, all of which is sold to the farmers in the neighbourhood.

Although much good work has been done, the Medical Officer says the Authority cannot accept "Rest and be Thankful" as their motto. Parson's Heath has no drainage and an impure water supply. The condition of the River Colne is referred to in the following terms:—

"I hope the state of the river will be able to receive during the present year some attention at your hands. It was in a most deplorable condition during the summer and autumn, and, unless something be done, will during the like periods of this year, present the same unsavoury characteristics. About twenty drains connected with this low-lying neighbourhood empty themselves into it between North Bridge and Chopping's Mill, and it there becomes a receptacle for dead

dogs and cats and other refuse, substances which pollute its water. The main drainage on its inception had for its main object the cleansing of the river, and it is pitiable to see this stream, which might be made perfectly pellucid and a pleasure to walk by its banks or sail on its water, a kind of slowly-moving cesspool, exhaling those effluvia in their variety and abundance which made Cologne at one time famous. The engineering difficulties to rectify this state of things are serious, but not insurmountable, and it is to be earnestly hoped that something will be done to remedy this nuisance and grievance."

The report also contains a summary of the work done in the Water Works department, from which it appears that

"The new Water Works buildings and pumping plant, together with the duplication of the rising and supply mains have been completed, with the exception of a few little details, and to use the words of the Engineer for the new Water Works—'The works are second to none in the Eastern Counties, and the character of the work is first-class. There is a plentiful supply of water, and sufficient for many years to come.'

"As soon as the contractor's work to the Tower and Tank has been completed, the Authority propose giving a continuous supply of water, except on the first Wednesday in each month, from 6 a.m. to 2 p.m., which time is to be reserved for repairs as at present."

There is also a very concise report from the Borough Engineer with reference to the Sewers and Streets, and the Inspector of Nuisances reports that 604 nuisances were reported or detected and 309 abated. Cow-sheds, Dairies, Milk-shops, and Slaughter-houses are constantly visited. Only one summons was issued during the year; a conviction was obtained.

6. EAST HAM.

Medical Officer of Health, A. W. BEAUMONT, M.R.C.S., &c.

Population 1891	...	...	32,710
„ 1894	...	...	45,500
Increase	...	...	12,790
No. of Deaths during 1894	...	...	574
Corrections	+ 13 (Deaths in Workhouse).		

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate	12·9	15·4	14·4*	14·4*	14·2*
Zymotic ,, ...	3·2	3·4	2·7	2·2	2·5
Birth-rate ...	35·5	34·9	36·5	38·9	34·1
Infantile Mortality ...	114·0	152·0	132·0	126·0	161·0
Zymotic Case-rate ...	15·2	14·0	6·3	8·2	7·8

*Not Corrected.

The Report is type written.

This Urban District is increasing rapidly in population. Whilst the Death-rate generally has been low, Infectious diseases have been unusually prevalent, and the mortality therefrom excessive.

A mild type of Scarlet Fever has been epidemic, especially in the North Woolwich District. Diphtheria and Croup are on the increase, and caused 39 deaths. The Plashet ward suffered most severely. Damp houses, local insanitary conditions, and school attendance, were amongst the factors recognized as tending to spread the infection. No less than 123 cases of Small-pox were reported, of which more than half occurred in the Central Ward. "Many of the cases were of a very mild type, so mild in fact, that people in ignorance went about their work while suffering from the complaint. As vaccination and re-vaccination alone can prevent the spread of this disease, the Guardians should enforce the Act, and the Sanitary Authority should adopt proper means to isolate the patients." In last year's Report, the Medical Officer of Health referred to the West Ham Small-pox Hospital, which was on the border of this district, being probably a centre of infection. This Hospital has now been closed.

The Water supplied by the East London Water Works Company continues satisfactory in quality and in quantity. The sewage is chemically treated and filtered before being discharged into Barking Creek. The Board collects the dust and house refuse, and is using it for raising the level of the land at the Sewage Works. There are many insanitary cottages, but these are being vigorously dealt with under the "Housing of the Working Classes Act." The condition of the Rivers Thames and Roding has "vastly improved with regard to pollution."

Many new streets have been sewerred, paved and drained ; the house drains connected with the sewers, and cesspools, abolished. Ventilating Shafts have been connected with the sewers. Several public urinals have been erected and connected with flushing tanks at the head of the sewers.

To prevent the spread of disease, disinfectants were supplied to the infected houses, and directions given for isolation, children were forbidden to attend school, and men kept from work until the houses were disinfected by the Inspector. Most of the Small-pox patients were removed to the Hospital, but only 11 other cases were so removed.

The additional requirements of the District are —

- (1) An extension of the sewerage system.
- (2) Improved arrangements for flushing and ventilating the sewers.
- (3) An additional Isolation Hospital and a Disinfecting Apparatus.

Two Inspectors of Nuisances are employed, but there is no report showing what work has been done in their department.

7. GRAYS.

Medical Officer of Health, S. H. SNELL, M.D. (Lond.), D.P.H.

Population 1891	...	..	12,087
„ 1894	...	...	15,000
Increase	...		2,913
Total No. of Deaths during the year			152
Corrections—None given.			

	1894.	1893.	1892.	1891.	1890.
Uncorrected Death-rate	10·1	11·8	18·8	15·5	23·6
Zymotic „	1·5	2·2	5·2	·5	6·4
Birth-rate ...	25·1	34·2	37·9	41·5	50·6
Infantile Mortality ...	154·	126·0	131·0	94·0	161·0
Zymotic Case-rate ...	11·8	13·8	14·3	6·3	—

The Report is short, but printed.

The Death-rate, which is uncorrected, is very low. The way in which a high and low Death-rate alternate is singular, *vide* statistics for 1890-4. The Birth-rate has declined very rapidly and uniformly, and during 1894 was only half that of 1890.

A wide-spread epidemic of Measles caused nine deaths. Ninety cases of Scarlet Fever occurred (30 being on board the training ships), but only one death resulted. All houses attacked by infectious illness have been supplied with Per-chloride of Mercury disinfectant. This is excessively poisonous, but apparently has not given rise to any accident, and Dr. Snell describes it as the most reliable, convenient and cheapest of all disinfectants. It is supplied with exact directions as to use and dilution.

The routine method of disinfection is as follows :—Soaking all bed-linen, blankets, etc., in a bath of Per-chloride of Mercury, disinfecting the whole room with sulphurous acid gas, or in bad cases with chlorine gas. In certain cases the mattresses, etc., are destroyed.

Water is supplied by the South-east Essex Waterworks Company, and is hard but seems to be very pure. The supply is constant, but cisterns are insisted on and are so badly placed and constructed in many instances that the water undoubtedly becomes fouled therein.

Many water-closets are not supplied with water. House refuse is collected by a contractor and “placed on the land.” No houses have been condemned as unfit for human habitation.

The Inspector's Report shows that considerable activity has prevailed in his department. The total number of nuisances abated is given as 846. Twelve summonses were taken out and nine convictions obtained. During the year 500 houses have been connected with the sewers. No samples of food or drugs were taken for analysis, the operation of the Adulteration Acts being left entirely “in the hands of the Police.”

8. HALSTEAD.

Medical Officer of Health, G. GORDON ROBERTS, M.B.

Population 1891	...	...	6,056
„ 1894	...	...	6,100
Increase	...		44
Total No. of Deaths during the year			138
Correction—14 deaths of aliens in Workhouse.			

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	15·7	16·8	14·5	16·1	18·7
Zymotic „ ...	3·2	3·9	1·0	1·0	·2
Birth-rate ...	24·7	26·8	25·7	—	26·2
Infantile Mortality . .	100·	98·0	95·0	78·0	89·0
Zymotic Case-rate ...	6·4	24·7	2·3	—	7·0

The Report is printed.

The past year is described as “a year of action” from the great number of improvements initiated.

The epidemic of Diphtheria which occurred in 1893 has been followed by a series of cases occurring at irregular intervals, and “near every case existed some sanitary defect or deposit of filth.” Typhoid Fever occurred in two houses and in both, the water closets were flushed directly from the main, and the drinking water tap was only a few feet from the closet pan. An interesting point bearing on the enactment of Bye-laws to meet these cases is discussed and has already been quoted.

All cottages erected during the year have a separate water supply within the house. Five additional ventilators have been placed on the sewers. A large number of house drains have been trapped and sink waste-pipes disconnected. A number of privies have been converted into W.C.'s and many ashpits abolished, and back-yards paved. A Special Report on houses unfit for human habitation was presented in July and led to five houses being voluntarily closed by the owners, three by magistrates' order, whilst 13 have been thoroughly repaired and closure prevented. A new code of Bye-laws has been drafted and awaits the approval of the Local Government Board. An Isolation Hospital is being erected.

The further improvements required are the more efficient ventilation of the sewers and the provision of proper flushing arrangements. A disinfecting apparatus will be required for the hospital.

An Inspector of Nuisances devotes his whole time to his duties and his Report shews that the work is done regularly and systematically, and has resulted in the detection and abatement of a large number of nuisances.

Special Reports. In July Dr. Roberts presented a report on "Houses unfit for Human Habitation." He divided the houses reported upon into three classes.

1. Houses in a fair condition, not much dilapidated nor defective sanitarily except from position; surrounded by houses not permitting of thorough ventilation, etc. (free access of air and light). Five came under this category.
2. Houses which need a very considerable amount of repairs and alterations, before they can be passed by the Board as habitable. There were ten houses in this class.
3. Houses which are so bad that nothing short of rebuilding will be of any use. Eighteen houses were reported in this class.

After giving details, the report concludes—"From the foregoing it will be seen that 19 houses should be condemned, and the same number will require considerable repairs if allowed to escape condemnation. Most certainly there are not 38 unoccupied houses at the present time, and it will not be wise to compel two families to live in one house, so causing overcrowding, and therefore I think it will be necessary to do the work by degrees."

In September a report on a case of Typhoid Fever, associated with an excessive prevalence of Diarrhœa was presented to the Authority, and is very interesting. Diarrhœa became more generally prevalent at a time when the town was being chiefly supplied with water from the old Water Works, the new Works being stopped for repairs. The Medical Officer of Health recommends that the water from the old well should not again be used until the well itself has been thoroughly examined.

9. HARWICH.

Medical Officer of Health, HAROLD GURNEY, L.R.C.P.,
L.R.C.S.

Population, 1891	...	8,403
„ 1894	...	8,503
Increase	...	100
Total deaths during the year	...	111
Corrections--None given.		

	1894.	1893.	1892.	1891.	1890.
Uncorrected Death-rate	12·9	17·0*	12·0	15·1	16·4
Zymotie ,,	·7	1·5	·8	·7	1·3
Birth-rate 	29·8	35·0	32·4	33·0	28·8
Infantile Mortality ...	138·	161·0	69·0	100·0	176·0
Zymotie Case-rate ...	6·6	19·2	9·4	—	—

*Corrected.

The Report is in manuscript.

The Infantile Mortality continues much above the average for the County. The only Zymotie Disease which has been prevalent is Searlet Fever, but this caused only one death, whilst all the cases of Typhoid Fever (three) notified proved fatal. Two of the latter were contracted outside the district, the third was traced to the use of an impure well water, and a Special Report was prepared and sent to the Local Government Board (but not to the County Council) because four other children of the same family were attacked with acute inflammation of the bowels after drinking water from the same source.

The Sanitary condition of the district, the Medical Officer of Health says, may be considered to be "in a very fairly satisfactory condition," yet it admits of improvement since

- (1) "The main sewer still continues insufficiently ventilated and is not only dangerous to health from the noxious gases given off at certain periods, but is also detrimental to the name of the town as a health resort."
- (2) The system of collecting house refuse is far from satisfactory. In some cases accumulations of filth have to be carried through the house, since there are no means of access to the yards behind.
- (3) There are many privies in confined yards which should be converted into water-closets.
- (4) Bye-laws with respect to Buildings, preventing Nuisances, etc., are required and a Code is being prepared for adoption.

A new Reservoir, which is being constructed at Bradfield it is hoped will allow of a more constant supply of water than

heretofore. Several roads have been made up and the houses therein connected with the main sewer.

There is no Report from the Inspector of Nuisances.

10. ILFORD.

Medical Officer of Health, JAMES SHIMELD, M.R.C.S, etc.

Population 1891	...	...	9,963
„ 1894	...	...	12,500
Increase	...	...	2,537

Besides the above, the City of London Asylum recently opened at Claybury, has a population of 2,520, and Dr. Barnardo's Home for Girls at Barkingside, 1,000.

The following statistics do not include either of the above Institutions and on the other hand they are not corrected for Workhouse deaths (save for 1894) :—

	1894.*	1893.	1892.	1891.	1890.
Uncorrected Death-rate	10·2	15·8	13·1	13·2	14·8
Zymotic „	·7	3·5	2·4	2·0	3·0
Birth-rate ...	30·9	31·4	30·3	30·6	31·9
Infantile Mortality ...	124·	119·0	144·0	124·0	125·0
Zymotic Case-rate ...	12·4	19·5	7·1	8·0	—

*Corrected.

The Report is in manuscript.

Ilford is rapidly increasing in population, and the Medical Officer of Health, basing his estimate upon the number of new houses placed on the rate-book during the year, and the excess of births over deaths, thinks that the above figures will be fairly correct.

An epidemic of Small-pox occurred early in the year, 21 cases being notified. “ Re-vaccination was freely carried out, and this, together with isolation of the patients and their attendants, soon arrested its spread.” An epidemic of Measles caused five deaths and the Infants' School was closed for three weeks.

Special and Periodical Inspections have been made and the following improvements are chronicled. The erection of three Hohman's sewer air destructors, the making up of roads on the Clement Estate. Other roads also are now being made up and sewered.

The sewerage system requires further extension, and an Isolation Hospital is wanted.

Mr. King, the Sanitary Inspector (whose report for 1893 was inadvertently over-looked in the summary for that year), shews that the district is systematically inspected and that much good work has been done. 336 nuisances were detected or reported and 282 abated. He directs the attention of the District Council to the unsatisfactory character of the water supply in the district called Bennetts Castle Lane, and to nuisances caused by cesspits and privies draining into ditches. The long-hopper closet is condemned as insanitary and the provision of a three gallon flushing cistern recommended instead of the two gallons in general use. This portion of his Report has already been quoted.

11. LEYTON.

Medical Officer of Health, A. F. PESKETT, M.R.C.S., etc.

Population 1891	...	...	63,230
„ 1894	...	...	70,000*
	Increase	...	6,770
No. of deaths	...	...	1,188
Corrections	...	— 363 deaths of aliens.	

* Exclusive of public institutions.

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	11·0	15·9	15·4	15·2	13·9
Zymotic „ ...	2·2	3·6	3·1	1·9	2·7
Birth-rate ...	31·8	36·2	36·7	34·9	30·0
Infantile Mortality ...	129·	130·0	141·0	127·0	140·0
Zymotic Case-rate ...	13·1	17·1	17·1	9·8	9·1

The Report is printed.

An epidemic of Small-pox occurred in the Spring. Seventy-one cases occurred. At first the patients were removed to the West Ham Borough and Highgate Hospitals, but after a time more patients were refused and they had to be treated at home and nursing provided. The temporary Fever Hospital appears to be used exclusively for cases of Scarlet Fever, and 72 patients were treated therein during the year.

Many complaints were received during the early part of the year about the intermittent supply of water to the district. The Engineer to the Water Company stated that the drought of 1893 had seriously depleted the springs and that the rainfall since had not affected the springs of the flow of the River Lea.

Additional shafts have been erected for ventilating the sewers but more are required. The 'pail' system of collecting house refuse has proved of such benefit that it has now become universal throughout the district, and from a sanitary point of view "one cannot speak too highly of it."

In many streets a house-to-house inspection has been made. Three houses were closed under the Housing of the Working Classes Act.

The inspector examines all the Slaughter-houses monthly, and the dairies and cow-sheds periodically. Probably in no other town in England has one Sanitary Inspector to look after so large a population. His report shews that a large number of most varied nuisances have been attended to.

12. MALDON.

Medical Officer of Health, E. P. GUTTERIDGE, M.R.C.S.

Population 1891	...	...	5,383
„ 1894	...	...	5,553
Increase	...	...	170
No. of Deaths ...	...	...	135

Correction—26 of aliens in the Workhouse.

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	19·6	15·9	18·6	19·0	20·4
Zymotic „ ...	1·3	2·55	3·5	1·5	1·6
Birth-rate ...	28·3	28·7	24·7	30·7	24·1
Infantile Mortality ...	121·0	63·0	157·0	97·0	137·0
Zymotic Case-rate ...	5·1	6·9	9·3	11·5	12·6

The Report is in manuscript.

The Death-rate in this Borough is again far above the average for the whole County, and its cause is worthy of special study, to ascertain, if possible, whether it is due to any

remediable cause. The Phthisis mortality is very excessive, being about three times the mean for the County. Zymotic diseases have caused comparatively few deaths.

Small-pox was introduced in May by a sailor, and as there was no Hospital for the reception of such cases, the disease spread. The Hospital Tent belonging to the Rural Sanitary Authority was borrowed, and this proving inadequate, a wooden Hospital was erected. Seven cases occurred in all, and the outbreak cost the Authority some hundreds of pounds. A considerable amount of clothing and bedding was destroyed. Only 13 cases of Diphtheria occurred during the year, and in most instances were found associated with insanitary conditions.

Mr. Gutteridge mentions that the question is being considered whether the present wooden Hospital cannot be converted into a permanent one for the joint use of the Urban and Port Sanitary Authorities by constructing proper foundations and adding internal fittings and warming apparatus.

There appears to be no systematic scavenging, since the Medical Officer of Health remarks that ash-pits are attended to when notice is received that they require emptying.

Offensive smells emanate, especially during sultry weather, from the manholes to the sewers, and to prevent this, flushing is attempted from a *water cart*, using a dilute solution of carbolic acid. This is not an efficient method; flushing chambers with automatic syphons should be constructed at the dead ends of the sewers.

The drainage and scavenging arrangements in the Fullbridge District led to a complaint being made to the Local Government Board, and an enquiry has been held, the result of which apparently is not yet known.

The Inspector's Report does not indicate any undue activity in his department. One nuisance only is stated to have been reported or detected, whilst 50 were abated. Four houses were disinfected, and £70 paid for compensation for clothing and bedding destroyed.

13. ROMFORD.

Medical Officer of Health, A. WRIGHT, M.R.C.S., etc.

Population	1891	...	...	8,408	
„	1894	...	...	8,800	
	Increase		...	392			
No. of Deaths	...	...	...	121
Correction + four deaths in Workhouse.							
Corrected Death-rate	...	1894. 14·3	1893. 15·1	1892. 17·1	1891. 15·3	1890. 13·4	
Zymotic	„	...	1·0	2·8	2·1	1·4	1·3
Birth-rate	32·3	31·1	35·1	31·9	31·9
Infantile Mortality	...	112·0	85·0	126·0	115·0	71·0	
Zymotic Case-rate	...	17·2	26·9	13·0	5·5	...	

The Report is in manuscript.

Diphtheria caused nine deaths during the year, the result of an outbreak which Mr. Wright reported upon at the time, and which he says ought not to have happened. In this Report the outbreak is attributed to the opening of a sewer and the re-construction of the closets at a School whilst the children were in attendance. Thrice was Small-pox introduced by tramps. They were removed to the Hospital at Highgate, there being no Hospital at Romford. Five other persons became infected.

Periodical inspections were made of the District and a few local nuisances remedied. No improvements of any importance are chronicled, and the defective flushing of the water closets is again referred to. This defective flushing is stated to obtain in nearly all the cottage property, and to be the main insanitary condition. The Medical Officer of Health advises the new District Council either to act upon his suggestion or obtain the opinion of the Medical Officer to the County Council, or some other sanitary expert.

There is no report of work done in the Nuisance Inspector's department.

14. SAFFRON WALDEN.

Medical Officer of Health, WM. ARMISTEAD, M.B., F.C.S.

Population	1891	...	...	6,060
„	1894	...	...	6,117
	Increase	...	...	57
No. of Deaths	...	...	...	97
Corrections—Aliens 20 + 1. Total, 78.				

		1894.	1893.	1892.	1891.	1890.
Corrected Death-rate	...	12·7	17·8	18·8	18·8	14·5
Zymotic	„	1·1	2·4	1·8	·6	1·4
Birth-rate	...	23·9	26·2	24·3	22·9	21·4
Infantile Mortality	...	116·	112·0	174·0	100·0	73·0
Zymotic Case-rate	...	13·4	4·2	8·0	1·5	2·9

The Report is printed.

The Birth-rate continues very low. The Death-rate has been unusually low.

No case of Small-pox occurred during the year, but Scarlet Fever and Diphtheria were very prevalent, most of the cases being of a mild type. The Diphtheria epidemic is the first which has occurred since Dr. Armistead has been the Medical Officer of Health (21 years). There was a suspicion that the disease was introduced by waifs and strays from London. However this may be, the children attending one particular School were chiefly affected. It was ascertained that there was a sewer ventilator near the School, but extending from the defective urinal was found, under the Schoolroom floor, an abundant growth of a fungus having a very offensive odour. The Medical Officer of Health says "it seems probable that this fungus had more influence on the propagation of the disease among the children attending this particular School than either the sewer ventilator or the defects in the drainage of the School." This outbreak forms the subject of a Special Report, and has already been referred to.

Besides minor sanitary improvements effected during the year, a new Isolation Hospital has been erected, consisting of two wards and a nurse's duty-room, and a separate administrative block. The Hospital is for the joint use of the Urban and Rural Districts.

The scavenging of the town is not undertaken by the Sanitary Authority.

The sewerage system requires to be extended as far as the Grammar School. The Report of the Nuisance Inspector shows that 1,320 cottages have been inspected, 38 houses disinfected, and that 112 nuisances were detected and abated.

15. SOUTHEND-ON-SEA.

Medical Officer of Health, G. F. JONES, M.R.C.S., etc.

Population 1891	...	...	12,333
„ 1894	...	...	15,407
Increase	...	...	3,074
No. of deaths ...	...	...	204
Correction—Deduct 14 aliens, add 6 paupers in Union Workhouse.			

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate	12·7	14·0	19·3	No returns	14·6
Zymotic „	1·5	2·4	3·7	„	2·4
Birth-rate	25·0	28·8	26·6	„	18·3
Infantile Mortality	140·	107·0	151·0	„	164·0
Zymotic Case-rate	14·9	24·3	19·6	„	23·9

The Official Report is in manuscript, but Mr. Jones afterwards sent in a printed copy. The exact determination of the population of a rapidly growing locality is always a matter of some difficulty and Mr. Jones estimates the population by different methods and with different results. The figures given above, calculated from the number of inhabited houses, and allowing 5·2 persons for each house (as determined by the 1891 census) is probably the most correct. The mortality statistics are calculated on this basis.

Typhoid Fever was again very prevalent, 128 cases being notified and of these 12 proved fatal. Most of these are said to have been of a mild type and to have been mainly attributable to sewerage defects.

The Town Council are trying “to obtain a better and more effective supply of water for water-closets and for the flushing thereof.” Thirty-two samples of water have been submitted to analysis from private wells, and all but three were condemned as unfit for domestic purposes.

The collection of house refuse is done by the Corporation and has been effectually done. The Hamlet Valley sewerage system has been improved, and the Royal Terrace sewer has been relaid. Other improvements are contemplated including the construction of a sewage storage tank and a pumping station to relieve the low level portion. The disinfection and

flushing of the sewers which has been carried out "has practically limited disease (particularly Enteric Fever) to the water line in that portion of the Borough South of the Tilbury Railway." An underground Public Sanitary Convenience is about to be constructed on Royal Hill, and the Medical Officer of Health advocates the erection of others in various parts of the Borough.

The St. John's Churchyard, still used as a burial ground, is a danger to health, being situated in the most populous part of the Borough and Mr. Jones thinks it should be closed at once and a Cemetery provided.

Steps are also being taken to improve the drainage of the Pavilion and for the removal of refuse from the beach and foreshore and for the discontinuance of the deposit of refuse thereon.

The Town Council are promoting in the ensuing Session of Parliament a Bill for various public improvements, and advantage is proposed to be taken of the opportunity to apply for increased powers relating to sanitary matters and streets and buildings, including a provision enabling the Corporation, by establishing abattoirs, to abolish all existing private slaughterhouses within the Borough.

The Medical Officer of Health has inspected a large number of premises. Twelve houses have been closed as unfit for human habitation. The Inspector of Nuisances is said to be overworked and the employment of an assistant or additional inspector advocated.

The Isolation Hospital is about to be enlarged and a steam disinfecter provided. Eighty cases were admitted into the Hospital during the year.

The Inspector's Report shews that he has had a busy year, a large number of house drains have been tested, and those found defective were re-laid and re-tested. 141 houses were disinfected.

16. WALTHAM HOLY CROSS.

Medical Officer of Health, J. DAMAR PRIEST,
M.R.C.S., D.P.H., etc.

Population 1891	...	...	6,062
„ 1894	...	...	6,343
Increase	...	...	281
No. of deaths ...	...	..	86
Correction— <i>Vide</i> below.			

	1894.	1893.	1892.	1891.	1890.
Uncorrected Death-rate	13·6	12·3	16·2	16·0	15·4
Zymotic „	2·2	1·6	2·4	3·6	2·2
Birth-rate ...	26·6	30·9	30·8	33·3	30·6
Infantile Mortality ...	118·	135·0	126·0	119·0	118·0
Zymotic Case-rate ...	11·0	12·6	11·7	7·6	4·4

The Report is printed and includes a large coloured map, to scale, shewing the distribution of the water-mains and the houses connected therewith.

The East London Water-mains are laid in almost every street, yet only about one-sixth of the total number of houses (1,216) are supplied from this source. The remainder are chiefly supplied by polluted shallow wells. As the mains have been laid nearly two years, the Medical Officer of Health says, “such a period of time should have been ample for all necessary connections to have been completed had this important matter been proceeded with in a thorough and systematic manner.”

The system of sewers works satisfactorily, but during periods of heavy rainfall the volume of sewage is more than can be utilized at the sewage farm and the purchase of more land is desirable. This, notwithstanding that there is a separate system of sewers for draining the subsoil and carrying off the rainfall.

Although the population consists chiefly of the labouring classes employed at the Government Factories, the provision of cottages is inadequate, and “very many houses are tenanted which nothing short of total demolition would satisfy the requirements of the Public Health Act.” This subject has already been referred to under the heading of “The Housing of the Working Classes.”

Scavenging is "neither regularly nor systematically carried out." Few houses are supplied with dust-bins, and nuisances arising from the accumulation of house refuse are common. Rabbits, poultry and other animals are often kept in confined back yards, a practice which has positively proved on several occasions dangerous to those keeping them. The footpaths require placing in better order. "Wet feet, damp walls, stagnant pools, and humid atmosphere all favour illness, and undoubtedly help to swell the already heavy sickness-rate of this district."

There is no Isolation Hospital or Disinfecting Apparatus. Small-pox patients are sent to the Highgate Hospital in an ambulance which the Medical Officer of Health says is a disgrace to the Council.

The Improvements most urgently requiring attention are :—

- (1) The carrying out of the Improvement Scheme for providing better houses for the working classes.
- (2) The abolition of shallow wells and the connection of the houses with the water mains.

The deaths due to accidents in the district form a considerable portion of the total deaths (15 out of 86), and the Medical Officer of Health, deducting these and also the deaths of non-residents (2) and adding the deaths of residents who died without the district (6), makes the corrected death-rate to be 11·8 per 1,000 population.

A mild type of Scarlet Fever was prevalent during the year. Sporadic cases of Diphtheria cropped up at intervals, and the Medical Officer of Health remarks "It is no wonder that, living as many of the community do, in houses indifferently drained, into which sewer air obtains an entrance, and a nidus is ever ready for the reception of the Diphtheria microbe, when the disease manifests itself its results are so frequently fatal." More than half the cases which occurred during the year terminated fatally.

The Sanitary Inspector's Report shows that only one well was closed during the year and 135 cottages inspected. £5 was paid as compensation for bedding destroyed. Twenty

nuisances were abated, two summonses were taken out and one conviction obtained and one hearing was adjourned.

17. WALTHAMSTOW.

Medical Officer of Health, St. CLAIR B. SHADWELL,
M.R.C.S., D.P.H., etc.

Population, 1891	...	...	46,316		
„ 1894	...	...	57,000		
Increase	...	...	10,654		
No. of deaths ...	...	...	670		
Correction	147 (Workhouse and London Hospital)				
	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate...	12.6	15.5	18.0	14.7	15.6
Zymotic „	1.8	2.4	3.9	1.9	3.7
Birth-rate ...	32.0	34.8	34.7	37.3	33.2
Infantile Mortality ...	129.6	133.2	145.0	120.0	147.0
Zymotic Case-rate ...	9.9	18.5	13.7	8.6	10.1

The Report is printed and includes that of the Sanitary Inspectors.

Walthamstow continues to grow rapidly, 500 houses having been erected during the year.

Small-pox was introduced five times into the district and 11 cases occurred in all. Most of these were removed to Plaistow or Highgate Hospital there being no Isolation Hospital in the district. Prompt removal and the re-vaccination of the inhabitants of infected houses prevented any serious outbreak.

247 cases of Scarlet Fever of a mild type were notified. “Want of proper means of isolating early cases was the chief factor in the spread of the disease.”

129 cases of Diphtheria and 15 of Croup were notified, and the mortality was 25 per cent. These diseases were most prevalent during September, October and November. Mr. Shadwell's notes on two outbreaks have already been referred to in the section on “Diphtheria.”

Of the 74 cases of Typhoid Fever notified, three were due to drinking polluted well water, and a considerable number were associated with drainage defects.

Some interesting references to the excessive mortality amongst infants have already been quoted (*vide* Infantile Mortality).

To prevent the spread of Infectious Disease, a list of cases reported is handed in daily to the School Board Office and from thence to the School Attendance Officers. Disinfectants are freely supplied, and wherever Diphtheria and Typhoid Fever have occurred the drains are tested. A disinfecting apparatus has been provided during the year, and about 3,000 different articles have been disinfected therein.

Eight houses were certified as unfit for human habitation, and 154 dwellings were inspected and certified to, under the Customs and Inland Revenue Act.

Both the Medical Officer's and Inspector's Reports show that much good work is being done. 1,854 premises were inspected, 300 drains were found defective or obstructed, 460 water-closet cisterns had to be re-instated, and 866 dirty rooms were cleansed. Many of the insanitary conditions are due to the carelessness and ignorance of a large proportion of the inhabitants of the smaller houses.

More stringent Bye-laws are required with reference to the provision of flushing tanks for closets, the construction of soil pipes, etc.

An Isolation Hospital is required.

18. WANSTEAD.

Medical Officer of Health, FRANK ARGLES, M.R.C.S., etc.

Population 1891	...	...	7,092
" 1894	...	...	7,800
Increase	...	...	708
No of Deaths ...	...	...	80
Correction.— <i>Vide</i> below.			

	1894.	1893.	1892.	1891.	1890.
Uncorrected Death-rate	10.3	10.5	11.1	10.5	9.0
Zymotic "	1.1	1.2	.4	.7	—
Birth-rate 	18.6	23.4	20.3	19.6	—
Infantile Mortality ...	55.2	108.0	81.0	28.0 (?)	53.0
Zymotic Case-rate ...	6.8	11.1	10.0	5.1	—

The Report is very brief, but is printed. There are two Orphan Asylums in the district, with a population of 850. Amongst these five deaths occurred during the year. The Medical Officer of Health, in estimating the death-rate, makes the necessary correction for these aliens, but has not corrected for the deaths of Wanstead paupers in the Union Workhouse.

In April four cases of Diphtheria occurred in one house, and were of a most virulent type, three of the patients dying. "On examination of the premises it was found that there was extensive leakage from the soil pipes under the floor, and the inlet outside the house had been filled with cement."

In August an Infectious Hospital was opened for the joint use of the Woodford and Wanstead districts, and eleven patients were admitted before the end of the year. "The Hospital has proved a great boon to the district, as evidenced by the grateful letters received from the friends of those who have been benefited."

There is no reference to any work done by the Sanitary Inspector.

19. WITHAM.

Medical Officer of Health, W. S. GIMSON, M.D.

Population 1891 3,300

 " 1894 3,300

 Increase ... —

No. of deaths 38

Correction—Two aliens. Workhouse deaths not recorded.

	1894.	1893.	1892.	1891.	1890.
Uncorrected Death-rate	10.9	15.0	16.0	12.6	10.5
Zymotic "	1.0	.9	2.1	1.2	1.4
Birth-rate 	30.0	24.0	22.5	22.8	28.6
Infantile Mortality ...	81.	112.5	88.6	125.0	94.0
Zymotic Case-rate ...	1.2	6.4	1.8	4.7	1.2

The Report is in manuscript.

One or two subjects referred to in Dr. Gimson's Report, viz :—Provision of nurses for paupers suffering from Infectious Diseases and the power of Sanitary Authorities to deal with healthy individuals who have been in contact with persons suffering from Infectious Disease—have already been discussed. Neither of the questions would have arisen had there been an Isolation Hospital in the district to which the patients could have been removed. The Medical Officer recommends that a Tent Hospital should be provided.

The water supply is not altogether satisfactory, "it is by far too hard for domestic purposes."

Scavenging has been carried out systematically, as also flushing of sewers with disinfecting solutions."

The Sanitary Inspector reports that 30 nuisances were reported or detected, all of which were abated. Sixty cottages, besides slaughter-houses, bakehouses, etc., were inspected.

20. WOODFORD.

Medical Officer of Health, W. G. GROVES, M.R.C.S., etc.

Population 1891	...	...	10,984
„ 1894	...	...	12,232
Increase	...	...	1,248
No. of deaths ...	...	...	134

Corrections—†6 in Workhouse—1 Alien.

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ..	11·4	10·7	12·9	12·9	15·3
Zymotic „	1·2	1·5	1·1	1·2	3·0
Birth-rate ...	24·0	25·7	27·0	30·3	30·6
Infantile Mortality ...	116·	88·5	132·0	102·0	121·0
Zymotic Case-rate ...	9·0	10·9	11·0	7·3	62·0

The decreasing Birth-rate, Mr. Grove thinks, may be due to an increasing number of premature confinements and still-births.

An extensive epidemic of Measles prevailed, causing six deaths. It is interesting to note that Measles is a disease

which must be notified in this district, and the Medical Officer of Health does not think that the Notification was of any service, whilst it put the district to considerable expense. One school was closed for a short period.

Several cases of Typhoid Fever were found associated with insanitary conditions, "Though the occupiers in more than one instance had spent considerable sums of money in having the drainage made good and effective, as they thought. In no case is more carelessness—to use no harsher word—shewn than in the laying of drains, fitting and fixing soil pipes, and plumbers work in general."

Three cases of Small-pox occurred and were removed to Highgate Hospital. Want of personal cleanliness, and domestic filthiness were believed to be important factors in the spreading of some of the Infectious diseases, especially Diphtheria. Delays in notification are recorded.

Stagnant ponds are still a source of nuisance. The surface ventilators to the sewers give rise to complaints during the summer months. The irregular emptying of dust-bins is a source of trouble and danger. Two well waters when examined were found polluted. The Bye-laws made by the County Council with reference to gipsy encampments have been enforced, and Woodford is now free from them, and is "thereby rid of an intolerable nuisance."

The Isolation Hospital (which is provided with a steam disinfecting apparatus) opened during the year, has been most useful.

The severe winter caused many houses to be cut off from the water supply for weeks, and the excessive amount of illness which occurred about this time may have been in part due to this cause. Not only had shallow well water (nearly always impure) to be used, but W.-C's were not usable, drains became blocked, etc. Many nuisances have been abated during the year, but there is no report from the Inspector. The Medical Officer of Health says that he is "a most energetic Inspector; unfortunately, however, he is Surveyor as well. The two offices, I think, should be separate."

21. WALTON-ON-THE-NAZE.

Medical Officer of Health, A. SOMERS IVENS, M.R.C.S., etc.

Population 1891	...	...	1,581		
„ 1894	...	...	1,591		
Increase	...	...	10		
No. of Deaths ...	...	...	27		
Correction	...	...	— 2 Aliens		
	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate	... 17·0	13·8	22·5	10·0	14·5
Zymotic „	... 1·2	·65	1·25	·7	3·1
Birth-rate	... 27·3	28·0	27·5	27·0	34·5
Infantile Mortality	... 190·0	119·0	114·0	—	120·0
Zymotic Case-rate	... 2·0	3·2	5·0	2·7	6·5

The Report is in manuscript.

This is the smallest Urban District in the County. The Infantile Mortality appears very excessive, but is exceptional and of no importance, since in such small Districts even the death of a single infant under one year of age markedly affects the Death-rate.

The only cases of Zymotic Disease which were notified were four of Diphtheria, and these were “not in any one case due to insanitary conditions.”

An epidemic of Whooping Cough of a mild type has been prevalent, but ceased before the end of the year.

The water supply is of a singular character and very unsatisfactory. The following is the account of it given by Mr. Somers Ivens :—

“The supply is derived from two sources, viz. :—(a) That supplied by the Tendring Hundred Waterworks Company. The source is Mistley, and this water circulates through the mains for a portion of the day. The water is very potable, except, perhaps, when first turned on, owing to the admixture of the residue of the town water. (b) Water for domestic purposes comes from the township springs, and is driven into the pipes daily from about 6 to 11 a.m. The system of having

a dual supply, the one consisting of a brackish, unpotable water, is not altogether satisfactory, and it would be much more advantageous to the town if a constant supply from Mistley could be commanded. Under present circumstances, unless the time be carefully noted, it is almost impossible to avoid using occasionally the mixed waters."

The sewerage system is described as satisfactory, and with few exceptions all the water closets have a supply of water laid on.

House refuse is collected on three days a week, and no accumulations permitted.

The District is periodically inspected. The houses are systematically cleansed, etc., since the majority are used by visitors.

An Isolation Hospital is wanted.

From the Report of the Nuisance Inspector, it appears that only six nuisances were reported, and all notices issued by the Inspector have been attended to.

RURAL SANITARY DISTRICTS.

1. BILLERICAY.

Medical Officer of Health, F. CARTER, M.D.

Population 1891	...	...	20,564
„ 1894	...	...	20,564
Increase	...	...	—
No. of deaths ...	...	...	353
Correction—See below.			

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ..	11·9	14·6	18·5	16·8	17·6
Zymotic „	1·45	1·3	1·3	·8	1·8
Birth-rate ...	27·4	27·5	28·7	29·8	27·5
Infantile Mortality ...	78·	91·0	115·0	113·0	109·0
Zymotic Case-rate ..	6·8	6·8	10·5	9·4	3·9

This Rural District contains the County Asylum (pop. 1,469), Barracks (pop. 1,019), and the Hackney Schools. 141 deaths occurred in the Asylum, four in the Barracks, and two in the Schools. The necessary corrections in calculating the Death-rate have been made by the Medical Officer of Health.

The Report is printed.

“There was an extensive outbreak of Small-pox in the Lunatic Asylum at Warley in February and March. In all there were 40 cases, 13 of which proved fatal. The first case was taken ill February 10th, and the last two cases were notified to me on March 19th.

The first case was a patient who had been an inmate of the Asylum more than two years. He had no vaccination marks, and had not been vaccinated since his admission to the Asylum. Very prompt measures were taken, and the outbreak was confined to one building. All the inmates, patients, and attendants were re-vaccinated—that part of the

building in which the outbreak took place was cut off from the remainder by a partition, and a separate building was utilized for the reception and treatment of patients. The services of a Medical Officer were procured to attend to these cases only, and the strictest precautions adopted to prevent any communication with others in the Asylum. By these means the disease was confined to the one part of the building first infected.

The mortality is very high, but it must be borne in mind that all these patients were broken down in health, and several of them were under treatment in the infirmary for other diseases which would have terminated their existence."

There is no doubt the disease was brought in by a visitor.

Small-pox at the time was very prevalent in and about East and West Ham and Stratford and there were many visitors to the Asylum from these places. Dr. Carter thinks it should be a rule of the Asylum that all cases should be re-vaccinated shortly after admission.

Six cases occurred in Brentwood and Weald, two being of men employed at the Asylum. Of 12 cases of Typhoid Fever in 11 families, in six houses the water supply or drainage or both were bad.

The Isolation Hospital continues of the greatest service, 25 cases being admitted during the year.

The District has been systematically inspected; only one house has been condemned, but in several instances repairs were done by the owners to prevent the Medical Officer of Health reporting the cottages under the Housing of the Working Classes Act. A large number of water analyses have been made.

An additional filtering tank has been constructed in connection with the drainage of Shenfield. At Vange, drainage improvements have been carried out.

A scheme for the disposal of the sewage of Hutton is under consideration.

Laindon, Basildon, Vange and part of Great Burstead are badly off for water. The present supply to part of Great

Burstead is very polluted and the question of a better supply is "a most urgent matter."

Two Sanitary Inspectors are employed, one for the Eastern and the other for the Western District. In the Eastern District 35 cottages only were inspected and 24 nuisances abated. One summons was taken out for allowing a house to be occupied without a certificate and a conviction was obtained.

2. BISHOPS STORTFORD (Part of).

Medical Officer of Health, GEO. TURNER, M.B., D.P.H.

Population 1891	...	...	6,368		
,, 1894	...	...	6,440		
Increase	...	...	72		
No. of Deaths ...	...	...	85		
	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	13·3	13·5	16·7	15·6	13·4
Zymotic ,, ..	·8	1·1	1·2	2·0	1·0
Birth-rate 	27·2	22·5	27·3	26·5	26·6
Infantile Mortality ...	98·	97·0	126·0	87·0	98·0
Zymotic Case-rate ...	8·0	7·9	8·2	2·2	3·9

There is no Special Report referring to the Essex parishes.

The Report is printed and embraces all the districts for which Dr. Turner is Medical Officer of Health. Only one case of Diphtheria was notified during the year. Outbreaks of Scarlet Fever occurred in Stansted, Ugley and Manuden.

"The inhabitants of Stansted Mountfitchet are still spending a considerable sum of money on the cesspits in that village. No doubt, if cesspits exist, it is very desirable that they should be properly attended to, but I fail to see that the inhabitants will effect any saving in the course they have decided to adopt, and I am perfectly sure that nothing but a sewer will prevent the nuisances complained of."

The Inspector's Report shows that 450 cottages, 10 cow-sheds and 12 slaughter-houses have been inspected, and that 235 nuisances were detected or reported, and that 210 of these were abated.

3. BRAINTREE.

Medical Officer of Health, T. CARR, M.B.

Population 1891	...	...	19,734
No. of Deaths ...	...	...	264

Correction—13 of Aliens in Workhouse.

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	12·6	16·65	17·8	14·3	16·4
Zymotic „ ...	1·05	2·05	·5	·8	1·1
Birth-rate „ ...	23·0	24·75	23·3	23·8	24·9
Infantile Mortality ...	74·	100·0	122·0	73·0	148·0
Zymotic Case-rate ...	4·1	7·8	5·5	9·1	—

The Report is in manuscript.

Small-pox was twice introduced, but on each occasion the outbreak was limited to the patient who introduced it. In consequence of these invasions the Sanitary Authority purchased two Berthon huts for use in such emergencies.

Of the 25 cases of Diphtheria notified, 15 occurred in the Coggeshall District and six in Terling.

An epidemic of Scarlet Fever occurred in Bocking during the spring, contributing 17 out of a total of 29 cases reported during the year.

The Medical Officer of Health inspected 406 cottages and the chief defects observed were bad water supplies and insufficient privy accommodation. In many parishes the water supply admits of improvement.

At Coggeshall systematic records are being kept of the level of the subsoil water in order to ascertain if there is any apparent connection between its movements and the prevalence of Diphtheria.

Much sewage is discharged into the Blackwater River and during the summer when the water was very low there was a considerable nuisance. The river bed was cleaned out and there has been an improvement in the condition of the stream, but the pollution still continues.

The sewage of Coggeshall discharges into a ditch which is in a filthy condition, and some system of sewerage is desirable. The drainage of a portion of Bocking also requires attention.

A bone-boiling nuisance at Bocking gave some trouble during the summer.

The Inspector's Report shows that he has examined 1,834 cottages, besides slaughter-houses, dairies, etc. 76 nuisances were detected, of which 72 have been abated. Legal proceedings were not taken in any case. £1 8s. was paid as compensation for infected bedding destroyed.

4. CHELMSFORD.

Medical Officer of Health, J. C. THRESH, M.B., D.Sc.

Population 1891	...	...	23,174		
No. of Deaths ...	...	...	264		
Correction	+ 37 Workhouse — 4 Aliens.				
	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	12·8	14·9	18·2	15·5	15·6
Zymotic ,, ...	·55	1·7	1·8	·9	2·6
Birth-rate ...	22·9	26·2	24·5	26·6	26·8
Infantile Mortality ...	72·	88·0	95·0	91·0	105·0
Zymotic Case-rate ...	8·2	9·8	8·9	4·9	4·2

The Report is printed.

Small-pox was twice introduced during the year, but in neither instance did the disease spread. Typhoid Fever, Diphtheria and Scarlet Fever were introduced on many occasions, chiefly by servants who had been sent to their homes as soon as they showed signs of illness. The largest number of cases were notified from the Parish of Woodham Ferris and towards the end of the year Scarlet Fever, Diphtheria and Influenza were prevalent there. A Special Report was issued on "Infectious Sore-Throat." Many children in Woodham Ferris and other parishes suffered from Sore Throat, and the illness, though usually of only a few days duration, seriously affected the school attendance in several parishes. In certain instances the throat affection was probably due to a mild attack of Scarlet Fever or Diphtheria, in others to Influenza, but there still remained a considerable number which could not be attributed to any of these diseases nor to colds.

In one outbreak of supposed Diphtheria in which about 30 cases were notified, the *Bacillus* causing true Diphtheria was only discovered in one instance. As no death occurred the Medical Officer of Health thinks it very probable that the outbreak was not Diphtheria.

Several important sanitary improvements have been completed during the year. A water supply has been furnished to Woodham Ferris, Rettendon, East Hanningfield and a portion of Runwell, at a cost of a little under £3,000. As this is a gravitation scheme there is no expenditure beyond that of keeping the mains in repair. Further extensions of the mains are contemplated. At the Baddow and Springfield Warterworks a duplicate gas engine has been put down. A Model Isolation Hospital with two wards and a nurse's room, and a caretakers' house have been erected upon a plot of ground in Great Baddow. The cost of the land (three acres) was £500 and the cost of the buildings £995. An ambulance has been made by a local builder at a cost of £20. Bye-laws with respect to Nuisances, Cleansing of Footways, Removal of House Refuse and Cleansing of Privies, etc., and with respect to New Streets and Buildings have been adopted. Others also have been framed for regulating Offensive Trades and for Slaughter-houses.

The improvements now being contemplated are the Drainage and Supply of Water to the village of Writtle, and the Supply of Water to Little Baddow.

Other villages remain in which the water used is inferior in quality, and the quantity available insufficient for all domestic requirements. A disinfecting apparatus is required to complete the equipment of the Isolation Hospital.

Eight houses have been formally condemned as unfit for human habitation, but 22 dilapidated cottages have been closed during the year. Many samples of water were taken for analysis, and the surroundings of a number of wells have been improved. Two summonses were taken out. In one case a young man was fined for being in a public place whilst suffering from Scarlet Fever. In another, a firm of bone-boilers were summoned for creating a nuisance. As they

re-modelled their works, erected a new "bone-hole" and adopted an arrangement for cremating the offensive gases given off from the latter, the summons was withdrawn.

The Inspector's Report shows that 908 houses were inspected, 105 disinfected and 320 nuisances abated.

5. DUNMOW.

Medical Officer of Health, R. RICHMOND, M.D.

Population 1891	...	...	16,674
No. of Deaths ...	...	...	227

Correction—None necessary.

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	13·6	16·2	19·0	17·6	15·5
Zymotic ,, ...	·5	1·0	1·7	·9	·7
Birth-rate 	23·0	27·5	24·8	26·9	24·6
Infantile Mortality ...	88·	74·0	109·0	64·0	83·0
Zymotic Case-rate ...	7·3	8·4	3·8	7·1	5·1

The Report is printed.

The population is believed to be decreasing but the statistics are based upon the census returns for 1891.

Small-pox was entirely absent and no death occurred from Diarrhœal complaints. An outbreak of Diphtheria associated with Scarlet Fever has already been referred to in a previous section of this (the County) report. At Great Bardfield a child who had been under treatment at the London Hospital contracted Diphtheria there, and being sent home as soon as he was considered well, infected two of his sisters, one of whom died. The third case was doubtless caused by the filthy condition of a ditch *containing excremental matter* close to the back door of the cottage.

Scarlet Fever was not generally prevalent but a very fatal type of the disease was introduced into the parish of Stebbing and caused two deaths. At Felstead and Great Dunmow the disease was spread owing to the carelessness of parents, allowing children to attend school and run about whilst in a desquamating condition.

An outbreak of Typhoid Fever occurred at Thaxted, the contagion being introduced by a person who had been in London and had returned home ill. This outbreak was associated with a nuisance arising from the use of the ' Brook ' as a common sewer.

The Sanitary Inspector reports that there has been a continual inspection of the parishes, that two houses have been closed as unfit for human habitation, that 116 nuisances were detected and abated. Two persons who had exposed Scarlet Fever patients were prosecuted and fined, and two owners who had permitted houses to be occupied without first obtaining certificates under the Public Health Water Act were fined 5s. and 10s. costs in each case.

6. EPPING.

Medical Officer of Health, TREVOR FOWLER, L.R.C.P.,
D.P.H., etc.

Population 1891	...	...	26,137		
„ 1894	...	...	27,559		
	Increase	...	1,422		
No. of Deaths ...	...	...	360		
Correction ...	...	...	— 4 Aliens.		
Corrected Death-rate	1894. 13.0	1893. 13.3	1892. 14.2	1891. 16.9	1890. 18.4
Zymotic „	1.8	1.1	.6	2.1	2.6
Birth-rate ...	25.0	26.7	25.4	25.6	33.1
Infantile Mortality	125.0	100.0	84.0	119.0	127.0
Zymotic Case-rate	5.7	10.7	4.2	3.0	5.6

The Report is printed.

Small-pox was introduced by a labourer who had been wandering from town to town in search of work. Fortunately, when discovered, he was promptly removed to Hospital, and no other case followed. The Medical Officer of Health notified the various districts through which he had passed, and it seems probable that he was the cause of an outbreak in one locality in which he had stayed.

161 cases of Scarlet Fever were notified, of which 81 were in the Chigwell sub-district. In several instances the infection was imported. The disease generally was of a mild type.

Diphtheria prevailed chiefly in the Epping sub-district. The excessive prevalence in Chingford is noticeable, especially as "the greater prevalence of the disease there has been nearly co-incident with the laying of the sewerage system." Reference has already been made in the section on "Diphtheria" to some of Mr. Fowler's remarks on this disease. Of the 11 cases of Typhoid Fever, several were imported, and "two were clearly attributable to the drinking of impure water."

Whooping Cough has been very generally prevalent, and caused 25 deaths.

The Isolation Hospital again proved most useful, 28 cases being admitted during the year.

Much of Chigwell district and a smaller portion of Epping are covered with forest and therefore uninhabited, but speaking generally, "there can be no doubt that overcrowding and bad house accommodation are serious flaws in the sanitary condition of the entire district." The heavy clay soil, causing general dampness of the atmosphere, faulty house construction and jerry building "produce some of their worst consequences in this district."

A number of special inspections have been made and reports furnished. Nine houses in "Low Street" were condemned, and some at Forest Side were also reported as unfit for human habitation. The same applies also to a row of cottages at Buckhurst Hill. The sanitary condition of Sheering Street is very unsatisfactory. New sewerage works are required at Chigwell to provide for the whole of that part of the district.

About £1,000 is being spent on the sewerage works at Epping. It has been decided to extend the sewers at Theydon Bois.

The Inspector's Report is very detailed, and indicates that a great deal has been done in his department. 1,376 houses were inspected and 465 notices served, and in several instances the assistance of the Magistrates was necessary to get nuisances abated and unhealthy dwellings closed.

7. HALSTEAD (No. 1).

Medical Officer of Health, S. H. ASHWORTH, M.D.

Population 1891	...	...	4,762			
„ 1894	...	...	4,898			
	Increase	...	136			
No. of Deaths	...	...	70			
Correction	...	...	+ 3 in Union Workhouse and 2 in Cottage Hospital.			
	1894.	1893.	1892.	1891.	1890.	
Corrected Death-rate	...	15·7	14·6	10·9	19·3	14·6
Zymotic „	...	1·25	1·1	·0	·6	·6
Birth-rate	...	25·2	26·2	20·5	25·2	26·6
Infantile Mortality	...	83·	79·0	102·0	192·0	118·0
Zymotic Case-rate	...	3·0	9·7	1·4	3·8	6·0

The Report is type-written.

The number of cases of infectious disease which occurred in this district was again very low. There was no epidemic outbreak of any kind, and Small-pox was not once introduced. By the order of the Sanitary Authority, the Inspector made a house-to-house inspection of the whole district, calling the Medical Officer's attention to any matters requiring his intervention. 37 nuisances were detected, and all were abated.

Four cases of infectious disease were sent into the Halstead Urban Hospital.

8. HALSTEAD (No. 2).

Medical Officer of Health, J. B. BROMLEY, M.R.C.S., etc.

Population 1891	...	...	6,048			
No. of Deaths	...	...	76			
Correction	...	...	+ 8 in Workhouse.			
	1894.	1893.	1892.	1891.	1890.	
Corrected Death-rate	13·9	14·4	13·1*	16·2*	15·3*	
Zymotic „	...	·7	1·0	·7	·5	·3
Birth-rate	...	23·8	31·9	22·6	25·0	24·0
Infantile Mortality	...	104·	98·0	124·0	86·0	72·0
Zymotic Case-rate	...	3·5	15·2	4·0	3·0	3·4

* Uncorrected.

The Report is type-written.

The only deaths which have been recorded from Zymotic disease are five which were due to Whooping Cough. A few cases of Diphtheria occurred, and were associated with insanitary conditions and impure water supplies. Early in the year a few cases of Scarlet Fever occurred, but since the end of July no case has been reported under the Notification Act. Three cases of Scarlet Fever were removed to the Cottage Isolation Hospital.

A systematic inspection of the district has been made. In many parts of the district the only water obtainable is from ponds or roadside ditches. Parts of Sible Hedingham and Toppesfield, Stambourne and Tilbury are especially referred to. Nuisances arise from drains emptying into the River Colne. Seventeen cases of overcrowding were reported, 16 of which were abated. Fifteen cottages were reported as being much dilapidated. Seventy-six cottages were found to have only one bedroom, and the great majority of these had no fireplace in the bedroom. There is great scope for improvement in the cottage accommodation. Both the drainage and water supply to Watermill Lane, Sible Hedingham, are unsatisfactory.

An Isolation Hospital for the parishes of Ridgewell, Stambourne, Toppesfield, and Tilbury is a desideratum, and a portable disinfecting apparatus would be most useful. Bye-laws with respect to the removal of refuse, etc., and the keeping of animals too close to dwellings are required.

The Inspector's Report shows that 68 nuisances were reported, or detected, and abated.

9. LEXDEN AND WINSTREE.

Medical Officer of Health, J. W. COOK, M.D.

Population 1891	...	...	21,566
" 1894	...	...	22,547
Increase	...	...	981
No. of Deaths ...	...	...	299
Corrections—None necessary.			

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	13·3	14·9	16·7	16·0	14·5
Zymotic „ ...	1·55	2·4	·85	1·2	·9
Birth-rate ...	26·2	27·8	25·9	26·0	23·6
Infantile Mortality ...	107·	88·4	106·0	107·0	114·0
Zymotic Case-rate ...	9·4	16·1	9·6	3·4	2·7

The Report is printed.

No case of Small-pox was notified. The outbreak of Diphtheria at Great Tey continued through January. Scarlet Fever has been very prevalent, but it was of an exceedingly mild type.

Two tent hospitals, together with a small bell tent for the use of the nurses, and a large van for storage purposes, have been purchased during the year.

A portion of Stanway now derives its water supply from the mains of the Colchester borough, but it would be well to extend the mains to supply an additional number of houses. Fourteen houses have been formally represented as unfit for human habitation under the Housing of the Working Classes Act, some have been repaired, others closed, but a few yet remain to be dealt with. A good many houses are represented as being in very bad repair, yet not sufficiently bad to warrant condemnation.

The summary of the sanitary duties of Parish Councils compiled by Dr. Cook and included in his Report has already been referred to.

434 cottages have been inspected, besides slaughter-houses, bake-houses, etc. 85 nuisances were reported or detected, all of which have been abated.

10. LINTON (Part of).

Medical Officer of Health, W. ARMISTEAD, M.B.

Population 1891 ...	...	...	...	604	
No. of Deaths ...	...	...	...	11	
	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	18·2	21·5	19·8	20·0	20·1
Zymotic „ ...	1·6	1·6	1·7	...	...
Birth-rate ...	24·8	43·0	21·4	...	23·2
Infantile Mortality ...	133·	115·0	...	...	...
Zymotic Case-rate ...	0·	4·9	...	...	46·0

The Report is printed. The district includes only two parishes, and these have now been added to the Saffron Walden Rural Sanitary District.

The Death-rate in these parishes, Hadstock and Bartlow, appears to be uniformly high.

A better water supply is needed for Hadstock. The present supply is from a spring in the Churchyard, which from its position cannot be considered satisfactory, and may have had some influence on the high Death-rate. To obtain a better supply a well requires sinking into the chalk, as by this means an abundant supply of pure water could be obtained.

The Inspector's Report shows that 47 premises have been inspected during the year and 14 nuisances abated.

11. MALDON.

Medical Officer of Health, JOHN C. THRESH, D.Sc. (Lond.),
M.B., D.P.H.

Population 1891	...	...	18,099		
No. of Deaths ...	...	...	266		
Correction ...	...	...	+ 26 in Union		
			Workhouse.		
	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	16·1	14·75	16·9	16·3	16·2
Zymotic "	·9	1·7	2·6	·8	1·8
Birth-rate ...	28·9	27·7	26·8	29·7	28·4
Infantile Mortality ...	90·	90·0	119·0	95·0	111·0
Zymotic Case-rate ...	4·9	9·1	9·0	6·7	7·5

The Report is printed.

An outbreak of Small-pox occurred at Langford in July, and 13 cases were reported. The outbreak formed the subject of a Special Report. An aged man died of unrecognised Small-pox, and nine persons who visited him when he was ill, the woman who performed the last offices to the dead, and the two undertakers who placed him in his coffin were afterwards attacked. Two cottages were utilised for Hospital purposes as well as the Hospital Tent.

There has been a marked diminution in the prevalence of Diphtheria. Nine cases of Typhoid Fever were notified, of which seven occurred in Burnham.

A public water supply, which has cost about £2,000, has been provided for the village of Southminster. The sewerage of Tolleshunt D'Arey approaches completion. Several portions of sewer at Heybridge Basin have been re-laid and larger flushing tanks provided. The public well at Goldhanger has been partly re-built.

The water supply to several villages is most unsatisfactory, and a scheme is being elaborated to carry water from Danbury or Woodham Mortimer to Purleigh, Mundon, Woodham Mortimer, Hazeleigh, Cold Norton, Stow Maries, Latchingdon, and possibly Althorne. The drainage of certain villages requires attention. An Isolation Hospital is required.

Mr. Alan Stewart, the Surveyor and Inspector, met with a fatal accident during the year, but his successor presents a Report for the six months during which he has held office. 43 nuisances were reported or detected, and of these 21 have been abated. £19 was paid as compensation for infected bedding destroyed.

12. ONGAR.

Medical Officer of Health, JOHN C. QUENNEL, M.R.C.S., etc.

Population 1891	10,557
-----------------	-----	-----	--------

No. of Deaths	140
-------------------	-----	-----	-----

Correction—None necessary.

		1894.	1893.	1892.	1891.	1890.
Corrected Death-rate	...	13·3	15·4	18·6	17·9	14·8
Zymotic	„	·8	·95	1·2	1·3	1·8
Birth-rate	...	25·8	25·7	26·0	26·2	26·0
Infantile Mortality	...	103·	111·0	117·0	126·0	98·0
Zymotic Case-rate	...	7·0	7·7	13·3	5·2	3·5

The Report is printed.

Diphtheria was very prevalent in Moreton and High Laver. In Moreton the drainage generally is very unsatisfactory, and as this is the second outbreak of Diphtheria which

has occurred during the last two years, "the matter is one for serious consideration."

"In the absence of any proper Isolation Hospital, it is not possible to do much to prevent the spread of infectious disease amongst the cottage population, owing to the want of bedroom accommodation."

Sanitary requirements—

- (a) An Isolation Hospital. An eligible site has been found, and is under consideration.
- (b) An improved system of drainage for Chipping Ongar.
- (c) An improved water supply throughout the chief portion of the district.
- (d) A scheme for the better drainage of Moreton.

The Inspector's Report shows that only 23 cottages have been inspected, no houses have been condemned, 18 nuisances detected and 16 abated.

13. ORSETT.

Medical Officer of Health, REA CORBETT, M.R.C.S., etc.

Population 1891	...	...	14,378		
" 1894	...	...	15,375		
Increase	...	...	997		
No. of Deaths ...	...	...	191		
Correetion ...	...	...	+ 2	— 12	
	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	11·8	16·4	19·2	14·3	15·2
Zymotic " ...	1·6	2·9	2·1	·9	1·5
Birth-rate ...	34·1	32·0	35·6	33·7	32·1
Infantile Mortality ...	105·	122·0	143·0	101·0	134·0
Zymotic Case-rate ...	5·7	11·6	6·6	3·5	6·3

The Report is printed.

Whilst the population is increasing in most parts of the district, it is decreasing around Tilbury Docks.

The greater portion of six parishes is supplied with water from the South Essex Water Company's mains, but many other parishes are dependent upon shallow wells, and in Horndon-on-the-Hill water is carted up to the village and sold at $\frac{1}{4}$ d. per pail. Laindon Hill is the worst supplied village, Dry Street being dependent upon a spring, in what is no more than a pool or pond, and constantly liable to pollution from surface water.

In no village is there a proper sewerage system, but a sewer has been laid from Tilbury Station to join the Grays system, which drains the houses on Tilbury Docks and the surrounding neighbourhood. A large number of houses drain into ditches and create nuisances. Cesspits abound almost everywhere, and at West Thurrock and parts of Stifford many of the cesspits go down into the chalk from which the South Essex Water Company derives its supply. There is no public scavenging. The cement making industry is a probable cause of Bronchitis and Lung irritation amongst the work-people.

Many of the burial grounds are overcrowded, but a Cemetery has recently been opened at Little Thurrock.

The most unhealthy part of the district is around Tilbury Docks, where the soil is peaty and water-logged. This and the insanitary conditions generally "sufficiently account for the heavy death-rate, especially of the Zymotic or preventible class."

About 400 cottages have been inspected and 41 were condemned. Of these, 15 have been closed and the remainder placed in habitable repair.

The scheme for draining the district round Tilbury Docks is not completed, on account of unforeseen difficulties. The Isolation Hospital has been enlarged. Small-pox cases are all removed to Hospital. Few other cases are removed. It is suspected that the aggregation of patients in the Small-pox Ships in the Thames may aerially convey the disease. Tents have been purchased, and during the summer everything was in readiness to combat Cholera should it have been introduced at the Docks.

Several cases of Typhoid Fever which occurred were associated with suspicious water supplies. One lad who had

been employed on a manure barge said the water tasted of manure.

Five cases of Scarlet Fever occurred in one house. The first patient was attacked three days after receiving a letter from a Fever Hospital.

The Inspector's Report shows that 270 nuisances were reported or detected, and that 260 were abated. In one case only was it necessary to take out a summons. Thirty samples of water were taken for analysis. Many cases of overcrowding were abated.

14. RISBRIDGE (Part of).

Medical Officer of Health, W. ARMISTEAD, M.B.

Population 1891 2,886

No. of Deaths 29

Correction—None necessary.

		1894.	1893.	1892.	1891.	1890.
Corrected Death-rate	...	10.0	16.6	17.3	21.8	12.8
Zymotic	...	1.4	2.7	1.4	.8	.3
Birth-rate	...	26.7	28.0	21.8	31.0	27.1
Infantile Mortality	...	78.	86.0	175.0	155.0	141.0
Zymotic Case-rate	...	9.9	20.1	15.5	...	...

The Report is printed.

Diphtheria prevailed in Helions Bumpstead during January, February, and March. This was a continuation of an epidemic which commenced in 1893. During the whole course of the outbreak there were 44 cases and seven deaths.

Two cases of Typhoid Fever occurred in a family at Steeple Bumpstead. The water supply was dangerously polluted and the drainage defective. A case at Birdbrook was imported, but the patient had been lodging in a locality where there had been cases of Typhoid Fever caused by a polluted water supply.

Permission has been obtained from the Local Government Board to borrow £150 for a water supply on Pale Green, Helions Bumpstead.

From the Inspector's Report it appears that 23 nuisances were discovered, 20 of which have been abated. 250 cottages, 20 cowsheds, and sundry other premises were inspected.

15. ROCHFORD.

Medical Officer of Health, G. D. DEEPING, M.R.C.S., etc.

Population	1891	...	...	17,529
„	1894	...	..	17,604
	Increase	...		75		
No. of Deaths	...	..	...	224
Correction—None given.						
	1894.	1893.	1892.	1891.	1890.	
Un-corrected Death-rate	12·7	16·4	15·7	17·6	15·0	
Zymotic „	...	1·2	2·9	1·3	2·4	1·7
Birth-rate	...	33·2	32·5	30·9	...	30·7
Infantile Mortality	...	85·	116·0	89·0	...	113·0
Zymotic Case-rate	...	12·3	14·3	7·7	6·2	...

The Report is in manuscript. As the whole of the deaths in the Workhouse are included in the above tables, the rates will be somewhat too high.

In the Rayleigh, Leigh and Shoebury sub-districts the population has markedly increased, whereas Rochford shows a perceptible decline.

The death-rate and infectious sickness rate in the sub-districts of Leigh and Southchurch have declined. “This result is in no small measure attributable to the work which has been accomplished during the last two years, especially in the parish of Southchurch, in regard to drainage and water supply.”

The numerous insanitary conditions which prevail in the Great Wakering and Shoeburyness districts have been referred to year after year, and Mr. Deeping hopes the newly-formed Urban District Council for Shoeburyness will find means for rectifying these undesirable conditions.

Scarlet Fever prevailed in the Rayleigh district, and was no doubt spread by the negligence and carelessness of the “Peculiar People.” Cases of Typhoid Fever also occurred here in houses whose sanitary condition was quite capable of generating the disease. An epidemic of Measles affected the majority of the young children in the village of Rayleigh.

Many sanitary improvements have been completed during the year, some on the Cambridge Estate, including piping of

ditches, improved house drainage, and enlargement of the sewage tank. Many other improvements are required, such as :—

- (a) An improved system of drainage and water supply to parts of Great Wakering. Here “cesspools and wells flourish side by side, and it is surprising that more cases of disease do not arise.
- (b) An improved system of drainage and water supply for the rapidly-developing village of Leigh.
- (c) The drainage of many groups of cottages requires improving.

The vigilance of the Sanitary Inspector is highly praised. His Report shows that 111 cottages were inspected and 69 nuisances detected and abated.

16. ROYSTON (Part of).

Medical Officer of Health, BUSHELL ANNINGSON,

M.D., M.A.

Population 1891 796

There is no separate return for the three Essex parishes in this Union. The parishes referred to have now been merged into the County of Cambridge, and are no longer under the charge of the Essex County Council.

The Inspector of Nuisances reports that the bakehouses and workshops were inspected, that four nuisances were detected, all of which were abated.

17. ROMFORD.

Medical Officer of Health, ALFRED WRIGHT, M.R.C.S., etc.

Population 1891	...	...	16,042
„ 1894	...	...	16,800
Increase	...	...	758
No. of Deaths ...	...	...	220
Correction—None given.			

	1894.	1893.	1892.	1891.	1890.
Un-corrected Death-rate	13.1	16.6	18.1	13.8	12.8
Zymotic ,,	2.9	2.6	1.6	1.6	1.3
Birth-rate 	23.0	33.0	31.8	29.2	30.8
Infantile Mortality ...	132.	101.0	151.0	114.0	108.0
Zymotic Case-rate ...	10.3	13.9	2.6	—	—

The Report is printed.

Infectious Diseases prevailed very extensively during the year. Rather an extensive outbreak of Small-pox occurred at Beacontree Heath early in the year. There were 29 cases, several of which were removed to Highgate Hospital. The first case was a fatal one, and an unfortunate delay in notifying and the carelessness of the relatives led to the outbreak. Re-vaccination was extensively resorted to. After the cases were removed or ended, the Inspector disinfected the houses, and burnt the bedding.

Diphtheria prevailed extensively, mainly in and around the village of Dagenham. Fifteen deaths were caused by the disease. The want of an Isolation Hospital adds "greatly both to the difficulty of treating these cases and of checking the spread of the disease." Twelve cases of Typhoid Fever occurred and were generally found associated with insanitary conditions. In the following paragraphs the Medical Officer of Health sums up the improvements wanted, contemplated, and in progress.

"The following items of improvements in the Sanitary condition of the district were recommended to your serious consideration in my Report for last year.

1. The adoption of a system of surface and slop drainage for the village of Dagenham.

2. The provision of a better system of sewage removal for the village of Hornchurch, either by the compulsory adoption of pail closets for the smaller, and the construction of *properly made* cesspools for the larger houses, and some means of sewage disposal than at present exists, whereby the neighbouring stream and ditches are horribly polluted.

3. The hastening of the negotiation now in progress with the Romford Local Board for the sewerage of that portion of the parish of Hornchurch, forming part of the town of Romford.

4. The insistence on the part of the Authority upon owners of cottage property, in the village of Rainham, providing pail closets in those cases when notice to do so has been disregarded, whereby the present insanitary conditions abounding in Rainham, may be to a considerable extent removed.

5. The provision of an Infectious Hospital.

Of these necessary improvements in the Sanitary condition of the district, the first is still urgently required, the serious prevalence of Diphtheria in Dagenham, being, in my opinion, mainly due to the want of a system for the removal of surface and slop water.

No. 2 also is still only partially adapted; although the system of pail closets is gradually being extended. There is still much pollution of the neighbouring ditches by cesspool overflows.

No. 3 is, I am happy to say, all but carried out, and I anticipate a great improvement in the Sanitary condition of this locality from the system of sewerage (whereby this locality is connected with the Romford Urban System), now all but completed.

No. 4. I understand that the provision of an Isolation Hospital is now determined upon, the delay in its provision now resting with the Local Government Board's consent to the plan proposed."

Besides the above, many defective water supplies and insanitary conditions are recorded by the Medical Officer of Health.

The Sanitary Inspector reports that 27 houses have been placed in habitable repair, 132 closets improved, and 280 nuisances abated. Three summonses were taken out, but in no instance was a conviction obtained.

18. SAFFRON WALDEN.

Medical Officer of Health, W. ARMISTEAD, M.B.

Population 1891	...	...	11,854
No. of Deaths ...	...	...	142
Correction	... + 17 in Workhouse and elsewhere, — 4 Aliens.		

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	13·1	14·2	19·9	16·7	14·7
Zymotic ,, ...	·7	·8	2·1	1·8	·1
Birth-rate 	26·3	28·0	24·2	27·3	24·7
Infantile Mortality ...	57·	78·0	94·0	86·0	54·0
Zymotic Case-rate ...	6·6	5·2	9·6	8·0	3·8

The Report is printed.

The Infantile Mortality in this district is again very low. Scarlet Fever was pretty generally prevalent, but in Hempstead only was there an epidemic. The schools were closed on account of the outbreak from June 11th until after the harvest holidays. Diphtheria attacked several members of two families living at Great Chesterford. Both families were living in very dirty cottages, one of which has since been closed.

Sanitary Improvements effected during the year. The Urban and Rural Authorities have jointly provided an Isolation Hospital, consisting of two wards and a nurse's duty room, and a separate Administration Block. Reservoirs at Elmdon and Chrishall have been cleaned out. Ten public pumps have been repaired and a new one erected at Clavering. Six cottages have been declared unfit for human habitation, four of which were closed and two put in habitable repair.

The further Sanitary Requirements of the district are :—

- (a) Extension of the water mains at Elmdon.
- (b) An improved supply of water at Newport, and Langley.

The Inspector reports that 2,702 cottages have been inspected and that the slaughter-houses, bake-houses and dairies have been visited ; that 89 nuisances were reported and that 143 have been abated.

19. SUDBURY (Part of).

Medical Officer of Health, J. SINCLAIR HOLDEN, M.D.

Population 1891	...	...	5,722
No. of Deaths ...	...	...	82
Correction ... +	6 in Sudbury Workhouse.		

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ...	15·3	19·5	15·3	16·2	14·4
Zymotic „ ...	1·0	3·1	·9	·5	1·0
Birth-rate 	21·8	23·7	23·9	23·0	23·4
Infantile Mortality ...	118·	125·0	87·0	69·0	117·0
Zymotic Case-rate ...	5·3	17·7	17·7	7·0	7·1

The Report is printed. The district has now its own District Council and will in future be known as the Belchamp Rural District. The Medical Officer has submitted a Report dealing exclusively with this area.

Scarlet Fever is the only disease of a Zymotic type which has prevailed during the year. Of the 18 cases which occurred 12 were in Belchamp St. Pauls, and the school was closed for a fortnight and cleansed and disinfected.

Deficient and impure water supplies exist in the parishes of Otten Belchamp and Pentlow. Ponds and ditches are the only sources available at the present. Pond water is also used in Borley and in outlying cottages in Henny, Alphamstone and Walter Belchamp. Several private wells have recently been improved.

The condition of the labourers' cottages generally is far from satisfactory, they are badly constructed, with brick floors, damp and uneven, and with small bedrooms in the roof.

The improvements required are indicated above. There is no Isolation Hospital. Besides special visits a systematic inspection of the district has been made. The Sanitary Inspector has visited 904 houses, and improvements have been effected in the sanitary condition of cottage premises, by preventing offensive accumulations in ashpits, pigstyes and manure heaps. Ditches receiving sewage have been kept clean.

20. TENDRING.

Medical Officer of Health, JNO. W. COOK, M.D.

Population 1891	...	...	24,034
„ 1894	...	...	25,309
Increase	..	...	1,275
No. of Deaths ...	...	...	345
Correction ...	— 9 Aliens in Workhouse.		

	1894.	1893.	1892.	1891.	1890.
Corrected Death-rate ..	13·6	15·3	17·6	16·4	16·7
Zymotic „ ...	1·5	1·6	1·2	1·1	1·6
Birth-rate 	27·7	27·1	28·5	29·2	29·3
Infantile Mortality ...	108·	121·0	109·0	88·0	109·0
Zymotic Case-rate ..	5·1	11·3	6·3	3·9	5·3

The Report is printed.

No case of Small-pox was reported. Diphtheria prevailed in certain portions of the district. An epidemic occurred at Weeley in the early part of the year and unfortunately the Sanitary Inspector, in the discharge of his duties, contracted the disease. In the third and fourth quarters of the year, it extended “to the adjoining parishes of Thorpe and St. Osyth, and also Kirkby, where finding suitable ground, it raged considerably.” Dr. Cook thinks the examination of cases for the discovery of the Diphtheria Bacillus “would be of the greatest advantage, as it would clear up whether the malady was Diphtheria or not, and prevent many cases, put down as being Diphtheria, from being included in the annual summary.” A mild form of Scarlet Fever was prevalent in several parishes.

Several schools had to be closed on account of these epidemic outbreaks.

Four houses have been closed as unfit for human habitation. Several water supplies have been improved.

At Frinton-on-Sea “a permanent system of sewers should be planned and carried out without delay.”

At Brightlingsea the scavenging is not satisfactorily done. The completion of the sewerage of the town which has been under consideration for some time should be taken up again as early as possible. The danger arising from casting raw sewage near oyster beds has already been referred to. At Weeley there are no sewers “and the present arrangement for getting rid of the house drainage is very primitive and objectionable.” At Great Oakley there is a sewer, “but it is not such as is now suited to the place.”

The Sanitary Inspector reports that he has inspected 40 cottages, that 79 nuisances were reported or detected and that all were abated. Three summonses were taken out and one conviction obtained.

MALDON (Port of).

Medical Officer of Health, E. PARKER GUTTERIDGE,
M.R.C.S.

The following is Mr. Gutteridge's Report submitted to the Port Sanitary Authority :—

GENTLEMEN,

I beg to report that during the year 1894, 855 vessels arrived at the Port of Maldon. Of these 16 came from foreign ports, 839 coastwise. All of these vessels were thoroughly inspected as regards sanitary arrangements, ventilation, and water, its storage and source from which it was obtained, periodical cleaning out of the water-tanks being recommended. In some instances the Master of the vessel was cautioned to keep the fore-castle and men's quarters in a better sanitary condition.

In January the ship *Adamson* (Capt. Chaney) arrived at the Basin, Heybridge, from Sunderland, with a man ill on board, and on being visited he was found to be suffering from Influenza. He was ordered to leave the vessel and go to his home at Witham.

In May, a sailor trading between London and Suffolk in the barge *Butterfly* feeling ill on the voyage landed at Harwich and travelled by train to Maldon. Small-pox appeared the next day. I communicated with Dr. Collingridge, the Medical Officer of Health of the Port of London, who caused the vessel to be stopped in the Thames and before allowing it to proceed to its destination had it thoroughly fumigated and disinfected. No other case occurred on board.

No deaths have taken place in the district.

There is no provision made at present for a Hospital for isolation of infectious diseases, etc., but the question of utilizing the present Temporary Hospital which was erected for the Small-pox is still under consideration.

I have the honour to be,

Gentlemen,

Your obedient Servant,

EDWIN PARKER GUTTERIDGE.

HARWICH (Port of).

Medical Officer of Health, HAROLD GURNEY, L.R.C.P., etc.

*To the Chairman and Members of the Harwich Port Sanitary
Authority.*

GENTLEMEN,

I have great satisfaction in reporting to you that during the past year no case of Cholera, Small-pox, or any case of infectious or contagious disease, has been brought into the Port of Harwich.

On August 19th I received a communication from H.M. Customs, informing me of the expected arrival of a vessel from Cronstadt, at which Port one of the crew was supposed to have been landed, while suffering from Cholera. Immediately on arrival I boarded the vessel, and found she was of Russian nationality. Her name was the *Max*, and she was bound for Ipswich. I questioned the Master, and he informed me that he had not touched port for 31 days, and that no case of sickness had occurred among the crew during the whole voyage. After carefully examining all hands on board, and ascertaining they were in a good state of health, I allowed the vessel to proceed to Ipswich, having previously notified Dr. Elliston, the Medical Officer of Health for that Port, of its probable arrival.

Notwithstanding the fact of our immunity from infectious disease in this Port, we have relaxed none of our precautions, and are in readiness to take steps for isolating a case of Cholera, at a very short notice. Our Sanitary Inspector is constantly on the watch, and he will notify me forthwith, should any case of sickness, of an infectious or contagious type, arise.

I have the honour to be,

Gentlemen,

Your obedient Servant,

HAROLD GURNEY,

Medical Officer of Health,

Port of Harwich.

March, 1895.

COLCHESTER (Port of).

Medical Officer of Health, C. A. S. LING, M.R.C.S., etc.

Brightlingsea,

January 15, 1895.

*To the Chairman and Members of the Colchester Port
Sanitary Authority.*

GENTLEMEN,

In again presenting my Annual Report to you, I am pleased to be able to state that the past year has passed very lightly over the Port of Colchester in respect to sickness and mortality, the former being only of a light nature, nothing infectious, and of the latter we have had none.

The Hospital is in good repair, and up to the present we have had no occasion to use it.

The Port Sanitary Inspector, assisted by the Water Police under his orders, looks after it well.

During the year, 402 vessels of all descriptions have entered the Colne, all of which have been inspected.

The following, either from the fact that they came from foreign Ports or other reasons stated, have received special attention :—

(Here follows a list of 29 vessels, all of which, with one exception, were found in a cleanly state and with a healthy crew.)

I remain,

Gentlemen,

Your obedient Servant,

C. A. S. LING,

Medical Officer of Health,
Colchester Port.

TABLE OF DEATHS during the year 1894, in the URBAN and RURAL Districts of the County of Essex, classified according to DISEASES, AGES and LOCALITIES.

[illegible]

KNES, coming to the knowledge of the Medical Officer
LOCALITIES.

NUMBER OF SUCH CASES REMOVED FROM THEIR HOMES IN THE SEVERAL
LOCALITIES FOR TREATMENT IN ISOLATION HOSPITAL.

1	2	3	4	5	6	7	8	9	10	11	12
Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS.					Cholera.	Erysipelas.	TOTAL.
				Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.			
8	15	..	...	...	...	...	...	...	...	...	23
36	48	...	...	...	...	...	...	...	...	...	84
..	No Hospital										
...	No Hospital										
...	...	...	...	...	...	...	...	...	...	...	2
...	1	1	...	...	1	...	...	...	...	...	3
...	1	1	...	...	2	...	...	...	...	1	18
...	13	2	...	...	...	...	...	...	...	...	3
3	...	...	...	...	...	...	...	...	...	...	96
85	4	2	...	...	5	...	...	...	...	...	4
3	1	..	...	...	...	...	...	...	...	...	5
...	2	3	...	...	...	...	...	...	...	...	16
...	9	7	...	...	...	...	...	...	...	...	16
...	16	...	...	...	...	...	...	...	...	...	...
...
...	No Hospital										
...	No Hospital										
7	In temporary Hospital										7
...	No Hospital										
...	1	2	...	..	...	...	...	...	...	...	3
...	15	9	...	...	2	...	...	...	...	...	24
...	...	...	...	...	...	...	...	...	...	...	2
4	15	5	...	...	54	...	...	...	...	...	78
...
...	...	...	...	...	...	...	...	...	...	...	7
2	...	...	5	...	...	...	...	...	...	...	20
6	...	4	1	...	8	...	...	...	...	1	3
...	...	2	...	...	1	...	...	...	...	...	...
...	No Hospital										
...	4	5	...	...	1	...	...	...	...	...	10
...	No Hospital										
154	145	43	6	..	74	...	...	...	...	2	424

